

AD-A229 799

BIBLIOGRAPHY OF DOCUMENTS RELATED TO THE THEORY, OPERATION, PERFORMANCE AND APPLICATIONS OF COAXIAL PLASMA GUNS (REVISED EDITION)

Representation of the second s

David W. Price

November 1990

Final Report



Approved for public release; distribution unlimited.

Weapons Laboratory Air Force Systems Command Kirtland Air Force Base, NM 87117-6008 This final report was prepared by the Weapons Laboratory, Kirtland Air Force Base, New Mexico, under Job Order 57970598. The Laboratory Project Officer-in-Charge was Dr David W. Price (AWX).

When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely Government-related procurement, the United States Government incurs no responsibility or any obligation whatsoever. The fact that the Government may have formulated or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication, or otherwise in any manner construed, as licensing the holder, or any other person or corporation; or as conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

This report has been authored by an employee of the United States Government. Accordingly, the United States Government retains a nonexclusive royalty-free license to publish or reproduce the material contained herein, or allow others to do so, for the United States Government purposes.

This report has been reviewed by the Public Affairs Office and is releasable to the National Technical Information Service (NTIS). At NTIS, it will be available to the general public, including foreign nationals.

If your address has changed, if you wish to be removed from our mailing list, or if your organization no longer employs the addressee, please notify WL/AWX, Kirtland AFB, NM 87117-6008 to help us maintain a current mailing list.

This report has been reviewed and is approved for publication.

David W. Duce DAVID W. PRICE, Ph.D.

Project Officer

FOR THE COMMANDER

BILLY W. MULLINS, Maj, USAF

Dep Chief, High Energy Plasma Division

DO NOT RETURN COPIES OF THIS REPORT UNLESS CONTRACTUAL OBLIGATIONS OR NOTICE ON A SPECIFIC DOCUMENT REQUIRES THAT IT BE RETURNED.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden. To Washington Headquarters Services, Directorate for information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND	D DATES COVERED
	November 1990	Final	
4. TITLE AND SUBTITLE		TEARY	5. FUNDING NUMBERS
BIBLIOGRAPHY OF DOCUMENTS RELATED TO THE THEORY,			PE: 62601F
OPERATION, PERFORMANCE AND APPLICATIONS OF COAXIAL			PR: 5797
PLASMA GUNS (REVISED EDITION) 6. AUTHOR(S)			TA: 05
a. AUTHOR(3)			WU: 98
Price, David W.			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)			8. PERFORMING ORGANIZATION REPORT NUMBER
Weapons Laboratory			
Kirtland Air Force Base	, NM 87117-6008		WL-TR-90-77
9. SPONSORING/MONITORING AGENCY	NAME(S) AND ADDRESS(ES)		10. SPONSORING / MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES			
12a. DISTRIBUTION / AVAILABILITY STAT	EMENT		12b. DISTRIBUTION CODE
Approved for public rel	ease; distribution u	unlimited.	
13. ABSTRACT (Maximum 200 words)			
plasma gun research has Research on coaxial pla and West Europe, Japan, the second bibliographi references dealing with in September 1988.) Th performance and applica	been performed sind sma gun topics has been the United States at collection of unclassial plasma guns are references deal withing of coaxial plasma fresearch conditions	Experimental acceptance the early 190 peen done in the and the Third Welassified unlimbers. (The first of the theory, asma guns and dos. Other relate	and theoretical coaxial 60's to the present. e Soviet Union, East orld. This report is ited distribution collection was prepared operational behavior, ense plasma focuses ed topics are referenced

14. SUBJECT TERMS Bibliographies, Coaxial Configurations,
Experimental Data, Focusing, Pinch Effect, Plasma Accelerators,
Plasma Current, Plasma Devices, Plasma Dynamics, Plasma
Generators, Plasmas (Physics), Theory.

17. SECURITY CLASSIFICATION OF THIS PAGE
Unclassified
Unclassified
Unclassified

15. NUMBER OF PAGES

246

16. PRICE CODE

20. LIMITATION OF ABSTRACT

Unclassified
Unclassified

NSN 7540-01-280-5500

WL-TR-90-77

CONTENTS

	rage
INTRODUCTION	1
ACKNOWLEDGMENT	4
BIBLIOGRAPHY	5



Acce	ssion For	-
NTIS	GRALI	D
DTIC	TAB	Ä
Unan	nounced	ñ
Just	ification_	
Ву		
	ribution/	
Ava	llability	Codes
	Avail and	/05
Dist	Dist Special	
1	1 1	
7	,	1
и'	1	

INTRODUCTION

This bibliography is provided for use in the analysis and operation of coaxial plasma guns. Plasmas in these guns are formed by inserting gases into the gun muzzle and applying high voltage across the gun electrodes. The gas is ionized by the induced electric field, causing a radial current J formation. This radial current J produces an azimuthal magnetic field \mathbf{B}_{θ} . The J \times B force drives the current with an axial velocity \mathbf{v}_z . This axial current can then be used in a variety of ways, many of which are summarized in the references reported here.

Because the focus of this bibliography is on coaxial plasma guns, references to other plasma guns are limited. Some references are provided, however, if the source reports parameters applicable to the coaxial gun. Papers on the dense plasma focus (DPF) are also cited, not for the focus physics, but because the DPF is generated with a coaxial gun and affected by the coaxial gun plasma generation. Compact toroids are also mentioned for similar reasons. Although such articles are not usually directed toward coaxial plasma guns, they do contain relevant information.

BIBLIOGRAPHIC INFORMATION AND RELATED COMMENTS

This bibliography contains many references which apply to the theory, operation and performance of coaxial plasma guns. There is no intent to ignore any relevant source. However, the references cited here are only

provide a partial listing. They are limited, by necessity, with the following restrictions:

- Abstracts are not generally referenced. Only abstracts having pertinent detailed information or extended abstracts (over two pages in length) are cited.
- 2. Foreign references, unless translated into English, are not cited. This is no reflection on non-English language published research, but on the linguistic limitations of the compiler. When available, both the translation and the original reference are cited.
- If a relevant preprint is published elsewhere, it is not referenced.
- 4. Only relevant unclassified, unrestricted sources or sources available in the open literature are cited. References bearing security restrictions are not presented.

As the compiler, I directly accessed all the references cited here. If I could not access a potential reference, then it is not cited.

Although all cited references are both unclassified and cleared for public distribution, accessibility of these documents may be limited by source availability and cannot be assured.

The maximum available bibliographic information is reported for the interested reader. The sole exception to this policy of maximum reporting is in the listing of the authors. Some references report only initials, not the full names. That practice is followed here to limit the length of the citations.

Some referenced authors do not use languages with a Roman alphabet (e.g., the Cyrillic of the Russian Language or the ideograph structure of the Japanese language) and spelling of authors' names can be inconsistent. The rule in this bibliography is to follow the source document spelling.

This is the second version of the bibliography on this topic. (The first bibliography was produced by the compiler in September 1988.)

This bibliography incorporates the recently published work by scientists from the Soviet Union, Eastern bloc nations and other nations of the Third World. It also reflects an increased recent interest in the dense plasma focus.

Although I have gone to some effort to verify the citations in this bibliography, the possibility for mistakes in a work of this length is very real. While I have tried to list as many relevant documents as I can find, I realize that I may have omitted pertinent documents from this listing. If the users of this document find errors or have addenda to the listing, I would appreciate their feedback. Comments will be used to correct later versions of this bibliography.

ACKNOWLEDGMENT

I am indebted to the efforts of the Weapons Laboratory Technical Library (WL/SUL) for their efforts in obtaining the materials cited in this bibliography. Were it not for their consistent and persistent work, it is doubtful this bibliography could have been prepared.

BIBLIOGRAPHY

- Agafonov, V. I., Golub, G. V., Golubchikov, L. G., Dyachenko, V. F.,
 Ivanov, V. D., Imshennik, V. S., Kolesnikov, Yu. A., Svirsky, E. B.,
 Filippov, N. V. and Filippova, T. I., "Study of a Non-Cylindrical ZPinch with Currents Exceeding 1 MA," in <u>Proceedings of the Third</u>
 International Conference on Plasma Physics and Controlled Nuclear
 Fusion, Novosibirsk, USSR, 1-7 August 1968, IAEA-CN-24,
 International Atomic Energy Agency, Vienna, Austria, 1969; <u>Nuclear</u>
 Fusion special supplement 1969, pp. 121-128. (English translation of
 Russian original in <u>Proceedings of the Third International</u>
 Conference on Plasma Physics and Controlled Nuclear Fusion,
 Novosibirsk, USSR, 1-7 August 1968, Vol. II, IAEA-CN-24,
 International Atomic Energy Agency, Vienna, Austria, March 1969;
 Nuclear Fusion supplement 1969, pp. 21-37.)
- Agafonov, V. I. and Belyayeva, I. F. et al., "Work on the Investigation and Increase of the Parameters of Plasma on a 'Noncylindrical Z-Pinch' Unit," Report No. FTD-MT-24-85-71, Foreign Technology Division, Wright-Patterson AFB, Ohio, 23 March 1971. (English translation of the Russian original in Rabota po Issledovaniyu i Povysheniyu Parametrov Plazmy na Ustanovke "Netsilidrichskiy Z-Pinch," pp. 1-20, Moscow, USSR, 1970.)
- Alekseev, A. M. and Tsvetkov, E. P., "Properties of a Dense Plasma in a Pulsed Plasma Accelerator," <u>Soviet Physics--Technical Physics</u>, Vol. 26, No. 4, April 1981, pp. 425-428. (English translation of Russian

- original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 51, No. 4, April 1981, pp. 714-718.)
- Alekseev, Yu. A., Kazeev, M. N. and Kisula, V. V., "Numerical Simulation of Acceleration in a Pulsed Dielectric-Erosion Accelerator," Soviet

 Physics--Technical Physics, Vol. 18, No. 7, January 1974, pp. 921923. (English translation of Russian original in Zhurnal
 Tekhnicheskoi Fiziki, Vol. 43, No. 7, July 1973, pp. 1454-1458.)
- Alekseev, Yu. A. and Kazeev, M. N., "Numerical Simulation of Two-Dimensional Flows in Pulsed Power Accelerators," Soviet Journal of Plasma Physics, Vol. 7, No. 5, September/October 1981, pp. 596-603.

 (English translation of Russian original in Fizika Plasmy, Vol. 7, No. 5, September/October 1981, pp. 1084-1098.)
- Alfven, H., Lindberg, L. and Mitlid, P., "Experiments with Plasma
 Rings," Journal of Nuclear Energy, Part C: Plasma Physics (called
 Plasma Physics until December 1983 and Plasma Physics and Controlled
 Fusion thereafter), Vol. 1, No. 3, Pergamon Press Ltd., London,
 England, 1960, pp. 116-120.
- Alston, L. L. (ed.), <u>High Voltage Technology</u>, Oxford University Press, Oxford, England, 1968.
- Ananin, S. I. and Vikhrev, V. V., "Comparison of the Thermonuclear Model of the Plasma Focus with Experimental Data," <u>Soviet Journal of Plasma Physics</u>, Vol. 7, No. 3, May/June 1981, pp. 266-271. (English

translation of Russian original in <u>Fizika Plasmy</u>, Vol. 7, No. 3, May/June 1981, pp. 494-502.)

- Anderson, D. V., Auerbach, S. P., Berk, H. L., Boyd, J. K., Brengle, T. A., Byers, J. A., Cohen, B. I., Condit, W. C., Eddleman, J. C., Freis, R. P., Granneman, E. H. A., Hammer, J. H., Hartman, C. W., Killeen, J., McNamara, B., Newcomb, W. A., Pearlstein, L. D., McCoy, M. G., Prono, D. S., Sayer, J. M., Schnack, D. D., Schumaker, D., Shearer, J. W., Smith, A. C., Jr., Taska, J., Turner, W. C., Driemeyer, D. E., Miley, G. H., Morse, E. C., McColl, E. and Weitzner, H., "Theory of Field-Reversed Mirrors and Field-Reversed Plasma-Gun Experiments," in Proceedings of the Eighth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Brussels, Belgium, 1-10 July 1980, Vol. I, IAEA-CN-38, International Atomic Energy Agency, Vienna, Austria, April 1981; Nuclear Fusion supplement 1982, pp. 469-480.
- Andrenucci, M., Caprili, M. and Lazzeretti, R., "Theoretical Models for Plasma Motion in Pulsed Coaxial Hydromagnetic Guns," in Energetics
 of Aircraft Auxiliary Power Systems, AGARD Conference Proceedings
 No. 104, Report No. AGARD-CP-104, pp. 31-1-31-17, Fuhs, A. E. (ed.), Advisory Group for Aerospace Research and Development, North Atlantic Treaty Organization, Seine, France, December 1972.
- Andrianov, A. M., Zemskov, A. I., Prut, V. V. and Khrabrov, V. A.,

 "Pulsed Discharges in Dielectric Chambers," <u>Soviet Physics--</u>

 Technical Physics, Vol. 14, No. 3, September 1969, pp. 318-321.

- (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 39, No. 3, March 1969, pp. 433-437.)
- Andrianov, A. M. and Alekseev, Yu. A., "Obtaining Pulsed Plasma Flows in Coaxial .lasma Accelerator with Erosion of Dielectric," Report No. FTD-HT-23-1075-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 4 October 1974. (English translation of Russian original in Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye, pp. 198-200, Moscow, USSR, 1973.)
- Appelt, J., Czaus, K., Sadowski, M. and Ugniewski, S., "Interferometric Measurements of High-Density Plasma," <u>Nukleonika</u>, Vol. 19, No. 1, January 1974, pp. 1-11.
- Appelt, J., Nowikowski, J., Sadowski, M. and Ugniewski, S.,

 "Investigations of the F-20 Plasma-Focus Machine by Means of Laser

 Interferometry," in <u>Proceedings of the Seventh European Conference</u>

 on Controlled Fusion and Plasma Physics, Lausanne, Switzerland, 1-5

 September 1975, Vol. I, p. 61, Ecole Polytechnique Federale de

 Lausanne, Lausanne, Switzerland, 1975.
- Appelt, J. and Kurzyna, J., "Some Experimental Results of Plasma

 Cumulation in a Rod Plasma Gun by Means of Laser Interferometry,"

 Nukleonika, Vol. 25, No. 5, May 1980, pp. 649-655.
- Aref'ev, V. I. and Leskov, L. V., "Structure of the Current Front and Turbulent Acceleration of Ions in a Pulsed Plasma Accelerator. I,"

- Soviet Physics--Technical Physics, Vol. 17, No. 11, May 1973, pp. 1822-1828. (English translation of Russian original in <u>Zhurnal</u> <u>Tekhnicheskoi Fiziki</u>, Vol. 42, No. 11, November 1972, pp. 2334-2344.)
- Aref'ev, V. I. and Leskov, L. V., "Structure of Current Front and

 Turbulent Acceleration of Ions in a Plasma Accelerator. II," Soviet

 Physics--Technical Physics, Vol. 17, No. 11, May 1973, pp. 1829
 1832. (English translation of Russian original in Zhurnal

 Tekhnicheskoi Fiziki, Vol. 42, No. 11, November 1972, pp. 2345
 2352.)
- Aretov, G. N., Komelkov, V. S., Pergament, M. I., Tserevitinov, S. S. and Vasiliev, V. I., "The Structure of Plasmoids of Coaxial Injector," in Proceedings of the Sixth International Conference on Phenomena in Ionized Gases, Paris, France, 8-13 July 1963, Vol. IV, pp. 265-272, Hubert, P. and Cremieu-Alcan, E. (eds.)
- Aretov, G. N., Vasil'ev, V. I., Komel'kov, V. S., Pergament, M. I. and Tserevitinov, S. S., "The Structure of Plasmoids from a Coaxial Injector," <u>Soviet Physics—Technical Physics</u>, Vol. 9, No. 7, January 1965, pp. 923-929. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 34, No. 7, July 1964, pp. 1191-1198.)
- Aretov, G. N., Vasil'ev, V. I., Komel'kov, V. S., Pergament, M. I. and Tserevitinov, S. S., "The Structure of Plasmoids from a Coaxial

Injector," <u>Soviet Physics--Technical Physics</u>, Vol. 9, No. 7, January 1965, pp. 923-929. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 34, No. 7, July 1964, pp. 1191-1198.)

- Aretov, G. N., Burdonsky, J. N., Valkov, Yu. A., Vasiljev, V. I.,
 Lototsky, A. P., Skvortsov, Y. V., Solovjova, V. G. and Suslov, Yu.
 F., "Characteristic Properties of a Plasma Flow in a Pulsed Magnetic Compressor," in Proceedings of the Second Topical Conference on
 Pulsed High-Beta Plasmas, Garching, near Munich, Germany, 3-6 July
 1972, Report No. IPP 1/127, pp. 187-190, Lotz, W., (ed.), Max Planck
 Institut für Plasmaphysik, Garching, near Munich, Germany, July
 1972.
- Aretov, G. N., Vasil'ev, V. I., Lototskii, A. P. and Skvortsov, Yu. V.,

 "Nitrogen Plasma Jet in a High-Current Pulsed Accelerator," Soviet

 Physics--Technical Physics, Vol. 18, No. 11, May 1974, pp. 14691473. (English translation of Russian original in Zhurnal

 Tekhnicheskoi Fiziki, Vol. 43, No. 11, November 1973, pp. 23242331.)
- Argyropoulos, G. S. and Demetriades, S. T., "Current Distribution in Crossed-Field Accelerators (Part II, Effects of Finite Reaction Rates and Electron Energy Convection)," Report No. AEDC-TR-68-204, Arnold Engineering Development Center, Arnold AFS, Tennessee, September 1968.

- Argyropoulos, G. S. and Demetriades, S. T., "Influence of Relaxation

 Effects in Nonequilibrium J × B Devices," <u>Journal of Applied Physics</u>

 Vol. 40, No. 11, October 1969, pp. 4400-4409.
- Argyropoulos, G. S., Casteel, M. A. and Demetriades, S. T., "Current Distribution in Crossed-Field Accelerators (Part III, Electrical and Gasdynamic Performance of J x B Accelerators)," Report No. AEDC-TR-70-86, Arnold Engineering Development Center, Arnold AFS, Tennessee, March 1970.
- Arkhipov, N. I., Zhitlukhin, A. M., Safronov, V. M., Sidne., V. V. and Skvortsov, Yu. V., "Injection of Plasma Streams with Energies of Up to 50 kJ, Stagnation Temperatures of More than 1 keV and β ≈ 1 into Open Magnetic Traps," in Proceedings of the Twelfth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Nice, France, 12-19 October 1988, Vol. 2, IAEA-CN-50, International Atomic Energy Agency, Vienna, Austria, October 1989; Nuclear Fusion supplement 1989, pp. 683-690.
- Armstrong, W. T., Barnes, D. C., Bartsch, R. R., Commisso, R. J.,

 Ekdahl, C. A., Henins, I., Hewett, D. W., Hoida, H. W., Jarboe, T.

 R., Lilliequist, C. G., Linford, R. K., Lipson, J., Marshall, J.,

 McKenna, K. F., Mondt, J. P., Platts, D. A., Seyler, C. E.,

 Sherwood, A. R., Sherwood, E. G., Siemon, R. E., Tuszewski, M. G.,

 Anderson, D. V., Christian, R., Klevans, E. H., Hamasaki, S.,

 Schnack, D. D., Sayer, J. M., Shestakov, A. I. and Killeen, J.,

 "Compact Toroid Experiments and Theory," in Proceedings of the

- Eighth International Conference on Plasma Physics and Controlled

 Nuclear Fusion Research, Brussels, Belgium, 1-10 July 1980, Vol. I,

 IAEA-CN-38, International Atomic Energy Agency, Vienna, Austria,

 April 1981; Nuclear Fusion supplement 1981, pp. 481-492.
- Artsimovich, L. A., Andrianov, A. M., Bazilevskaya, O. A., Prokhorov, Yu. G. and Filippov, N. V., "Investigation of Pulsed Discharges of High Current Intensity," <u>Atomic Energy (USSR)</u>, Vol. 1, No. 3, 1956, pp. 87-91, Associated Technical Services, Glen Ridge, New Jersey. (English translation of Russian original in <u>Atomnaya Energiya of the Academy of Sciences of the USSR</u>, Vol. 1, No. 3, 1956, pp. 76-80.)
- Ashby, D. E. T. F., "The Flow of High Energy Plasma in a Magnetic Guide Field," in Proceedings of the Sixth International Conference on Phenomena in Ionized Gases, Paris, France, 8-13 July 1963, Vol. IV, pp. 465-468, Hubert, P. and Cremieu-Alcan, E., (eds.)
- Ashby, D. E. T. F., "Energy Loss in Pulsed Coaxial Plasma Gun," AIAA

 Journal, Vol. 3, No. 6, June 1965, pp. 1045-1047.
- Ashby, D. E. T. F., Gooding, T. J., Hayworth, B. R. and Larson, A. V.,

 "Exhaust Measurements on the Plasma from a Pulsed Coaxial Gun," AIAA

 Journal, Vol. 3, No. 6, June 1965, pp. 1140-1142.
- Askar'yan, G. A. and Lerman, A. A., "Directed Ejection of a Concentrated Compact Plasmoid from a Coaxial Injector into the Atmosphere,"

 Soviet Technical Physics Letters, Vol. 10, No. 1, January 1984, pp.

- 21-22. (English translation of Russian original in <u>Pis'ma v Zhurnal</u> Tekhnicheskoi Fiziki, Vol. 10, No. 1, 12 January 1984, pp. 49-51.)
- Atkinson, D. W. and Phillips, J. A., "Plasmascope Observations of Plasma in a Magnetic Field," Report No. CLM-R82, United Kingdom Atomic Energy Authority, Research Group, Culham Laboratory, Abingdon, Oxfordshire UK, March 1968.
- Axnas, I., "Experimental Investigation of an Ionizing Wave in a Coaxial Plasma Gun," Report No. TRITA-EFP-72-31, Department of Plasma Physics, Royal Institute of Technology, Stockholm, Sweden, December 1972.
- Axnas, I., "Velocity Limitations in Coaxial Plasma Gun Experiments with Gas Mixtures," Report No. TRITA-EPP-76-02, Department of Plasma
 Physics, Royal Institute of Technology, Stockholm, Sweden, April
 1976.
- Axnas, I., "Experimental Investigation of the Critical Ionization

 Velocity in Gas Mixtures," <u>Astrophysics and Space Science</u>, Vol. 55,

 No. 1, May 1978, pp. 139-146.
- Axnas, I., "Experimental Comparison of the Critical Ionization Velocity in Atomic and Molecular Gases," Report No. TRITA-EPP-78-04,

 Department of Plasma Physics, Royal Institute of Technology,

 Stockholm, Sweden, August 1978.

- Axnas, I., "The Radial Variation of the Ionization in a Coaxial Plasma

 Gun Operated under Critical Velocity Conditions," Report No. TRITA
 EPP-81-07, Department of Plasma Physics, Royal Institute of

 Technology, Stockholm, Sweden, December 1981.
- Babkin, G. V., Mikhalev, V. G., Ogorodnikov, S. N., Orlov, R. V. and Potapov, A. V., "High-Current Coaxial Plasma Source," Soviet

 Physics--Technical Physics, Vol. 20, No. 9, September 1975, pp. 1175-1178. (English translation of Russian original in Zhurnal

 Tekhnicheskoi Fiziki, Vol. 45, No. 9, September 1975, pp. 1855-1861.)
- Bacilek, J., "The Erosion of the Central Electrode of the Coaxial Gun," in <u>Proceedings of the Ninth Czechoslovak Seminar on Plasma Physics</u>
 and <u>Technology</u>, <u>Liblice</u>, <u>Czechoslovakia</u>, 31 March--2 April 1976,
 Report No. IPPCZ-213, pp. 39-40, Ceskoslovenka Akademie Ved, Prague,
 Czechoslovakia, May 1976.
- Baconnet, J. P., Cesari, G., Coudeville, A. and Watteau, J. P., "90°

 Laser Light Scattering by a Dense Plasma Focus," Physics Letters,

 Vol. 29A, No. 1, 24 March 1969, pp. 19-20.
- Baconnet, J. P., Cesari, G., Coudeville, A. and Watteau, I. P., "Plasma Focus Structure from One Nanosecond Schlieren and Shadow Pictures," in Proceedings of the Ninth International Conference on Phenomena in Ionized Gases, Bucharest, Rumania, 1-6 September 1969, p. 665, Musa,

- G., Ghica, I., Popescu, A. and Nastase, L. (eds.), Editura Academiei Republicii Socialiste România, Bucharest, Rumania, 1969.
- Baconnet, J. P., Cesari, G., Coudeville, A., Patou, C. and Watteau, J. P., "Density, Temperatures and Neutron Measurements of a Plasma Focus," in Contributions to the Fourth European Conference on Controlled Fusion and Plasma Physics, Rome, Italy, 31 August-4

 September 1970, p. 118, Comitato Nazionale per l'Energia Nucleare, Rome, Italy, 1970.
- Bahilov, V. A., Belkov, M. G., Belyaev, P. A., Volobuev, I. V., Gribkov, V. A., Dubrovsky, A. V., Zaytsev, V. M., Igonin, Yu. F., Isakov, A. I., Kalachev, N. V., Korop, E. D., Krokhin, O. N., Kuznetsov, S. G., Makarov, Yu. V. and Nikulin, V. Ya., "Experimental Investigations on 'Plamya' Installation," in Proceedings of the Fourth International Workshop on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11
 September 1985, pp. 55-59, Denus, S. and Czekaj, S. (eds.),
 Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Bak, H. I., In, S. R., Chung, K. H. and Lee, U. C., "Study on a Coaxial Plasma Gun (III)," <u>Journal of the Korean Nuclear Society</u>, Vol. 12, No. 3, September 1980, pp. 163-170.
- Baker, C. C. and Forsen, H. K., "Investigation of the Energy and

 Impurity Content of a Crossed-Field Plasma Gun," <u>Journal of Applied</u>

 Physics, Vol. 45, No. 5, May 1974, pp. 2099-2106.

- Baker, D. A., "Calculations of Magnetic Energy Storage of the Plasma Focus," in <u>Status Report of the LASL Controlled Thermonuclear Research Program for 12-Month Period Ending October 31, 1967</u>, Report No. LA-3831-MS, pp. 89-91, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 19 December 1967.
- Baksht, F. G., Moizhes, B. Ya. and Rybakov, A. B., "Critical Mode in a Coaxial Plasma Accelerator with External Magnetic Field," in <u>Soviet Physics--Technical Physics</u>, Vol. 21, No. 2, February 1976, pp. 150-152. (English translation of Russian original in <u>Zhurnal</u>
 Tekhnicheskoi Fiziki, Vol. 46, No. 2, February 1976, pp. 265-268.)
- Balagurov, A. Ya., Grishin, S. D., Levtov, V. L., Leskov, L. V.,
 Mikhalev, V. G., Petrov, A. M., Savin, A. F., Savichev, V. V. and
 Chivilev, V. A., "Characteristics of Plasma Acceleration in
 Electromagnetic Accelerators with Dielectric Erosion," Soviet

 Physics--Technical Physics, Vol. 15, No. 3, September 1970, pp. 345-351. (English translation of Russian original in Zhurnal
 Tekhnicheskoi Fiziki, Vol. 40, No. 3, March 1970, pp. 450-457.)
- Balagurov, A. Ya., Grishin, S. D., Ershov, A. G., Leskov, L. V. and Petrov, A. M., "Pulsed Two-Stage Plasma Accelerator," <u>Soviet</u>

 <u>Physics--Technical Physics</u>, Vol. 15, No. 3, September 1970, pp. 352-354. (English translation of Russian original in <u>Zhurnal</u>

 Tekhnicheskoi Fiziki, Vol. 40, No. 3, March 1970, pp. 458-461.)

- Balyberdin, V. V. and Khizhnyak, N. A., "A Theory of an Erosion Plasma Source," Report No. FTD-MT-24-173-69, Foreign Technology Division, Wright-Patterson AFB, Ohio, 18 August 1969. (English translation of Russian original in Samoletostroyeniye i Tekhnika Vosdushnogo Flota, No. 11, pp. 35-41, 1967.)
- Bañuelos, A., Bruzzone, H., Delellis, R., Gratton, J., Gratton, R.,
 Kelly, H., Milanese, M., Pouzo, J. and Rodriguez-Trelles, "Recent
 Plasma Focus Research," in <u>Proceedings of the Seventh International</u>
 Conference on Plasma Physics and Controlled Nuclear Fusion Research,
 Innsbruck, Austria, 23-30 August 1978, Vol. II, IAEA-CN-37,
 International Atomic Energy Agency, Vienna, Austria, May 1979;
 Nuclear Fusion supplement 1979, pp. 173-183.
- Bar Avraham, E. and Porath, Y., "The Use of a Dense Plasma Focus

 Accelerator in Nuclear Physics," <u>Nuclear Instruments and Methods</u>,

 Vol. 123, No. 1, January/February 1975, pp. 5-9.
- Barnes, C. W., Henins, I., Hoida, H. W., Jarboe, T. R., Knox, S. O.,
 Linford, R. K., Platts, D. A. and Sherwood, A. R., in <u>Proceedings of the Fifth Symposium on Physics and Technology of Compact Toroids in the Magnetic Fusion Energy Program, Bellevue, Washington, 16-18

 November 1982, Report No. CONF-821124, pp. 108-112, Hoffman, A. L. and Milroy, R. D. (eds.), Mathematical Sciences Northwest, Inc.,
 Bellevue, Washington, January 1983.</u>

- Basque, G., Jolas, A. and Watteau, J. P., "Comparison of a Two-Dimensional Snowplough Model with Experiment," <u>The Physics of Fluids</u>, Vol. 11, No. 6, June 1968, pp. 1384-1386.
- Basque, G., Patou, C. and Vezin, R., "A Critical Comparison of a Two-Dimensional MHD Code and a Focus Experiment," in <u>Proceedings of the Second Topical Conference on Pulsed High-Beta Plasmas, Garching, near Munich, Germany, 3-6 July 1972</u>, Report No. IPP 1/127, pp. 151-154, Lotz, W. (ed.), Max Planck Institut für Plasmaphysik, Garching, near Munich, Germany, July 1972.
- Bass, V. P., Belik, N. P. and Kozlovskii, E. E., "Plasmoid Motion in Axisymmetric Magnetic Field," <u>Magnetohydrodynamics</u>, pp. 300-303, Consultants Bureau, a division of Plenum Press, New York City, New York, 1974. (English translation of Russian original in <u>Magnitnaya</u> Gidrodinamika, Vol. 7, No. 3, July/September 1971, pp. 15-18.)
- Bazdenkov, S. V., Gureev, K. G., Filippov, N. N. and Filippova, T. N.,

 "Possible Mechanism of Breaking the Current Sheath in a

 Noncylindrical Z-Pinch," <u>JETP Letters</u>, Vol. 18, No. 3, 5 August

 1973, pp. 118-119. (English translation of Russian original in

 <u>Zhurnal Éksperimental'nol i Teoreticheskol Fiziki, Pis'ma v</u>

 Redaktsiiu, Vol. 18, No. 3, 5 August 1973, pp. 199-201.)
- Beason, C. W., "A Method for Determining the High Energy Photon Spectrum of a Pulsed Plasma Source," Report No. AFIT/GNE/PH/84M-1, Master's

- thesis, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, March 1984.
- Beckner, E. H., "Production and Diagnostic Measurements of Kilovolt
 High-Density Deuterium, Helium and Neon Plasmas," <u>Journal of Applied</u>
 Physics, Vol. 37, No. 13, December 1966, pp. 4944-4952.
- Beckner, E. H., "Pulsed, High Intensity Source of Soft X Rays," The

 Review of Scientific Instruments, Vol. 38, No. 4, April 1967, pp.
 507-511.
- Beckner, E. H., "Detailed Measurement of the X-Ray Emission Spectra of High Density Kilovolt Plasmas," in <u>Proceedings of the APS Topical</u>

 <u>Conference on Pulsed High-Density Plasmas, Los Alamos Scientific</u>

 <u>Laboratory, Los Alamos, New Mexico, 19-22 September 1967</u>, Report No.

 LA-3770, pp. C4-1-C4-6, Los Alamos Scientific Laboratory, Los

 Alamos, New Mexico, 29 September 1967.
- Beckner, E. H., Clothiaux, E. J. and Smith, D. R., "Dominant Source of Soft X-Radiation from Coaxial Discharge Tubes," <u>The Physics of</u> Fluids, Vol. 12, No. 1, January 1969, pp. 253-254.
- Behler, K. and Bruhns, H., "Three-Fluid Magnetohydrodynamic Simulation of Plasma Focus Discharges," <u>The Physics of Fluids</u>, Vol. 30, No. 12, December 1987, pp. 3767-3776.

- Beiser, A. and Raab, B., "Hydromagnetic and Plasma Scaling Laws," The

 Physics of Fluids, Vol. 4, No. 2, February 1961, pp. 177-181.
- Belikov, A. G., Goncharenko, V. P., Mishchenko, V. M., Safronov, B. G. and Slavnyi, A. S., "Obtaining High-Speed Plasmoids with a Coaxial Source," <u>Soviet Physics--Technical Physics</u>, Vol. 9, No. 5, November 1964, pp. 646-650. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 34, No. 5, May 1964, pp. 847-852.)
- Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K., Derepovskii, N. T., Safronov, B. G. and Khizhnyak, N. A., "Energy Characteristics of a Coaxial Plasma Source," <u>Soviet Physics--Technical Physics</u>, Vol. 16, No. 9, March 1972, pp. 1488-1491. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 41, No. 9, September 1971, pp. 1881-1886.)
- Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K. and Derepovskii, N. T., "Separation of Plasma Flowing at an Angle to the Axis of a Coaxial Source," <u>Soviet Physics--Technical Physics</u>, Vol. 17, No. 6, December 1972, pp. 1057-1058. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 42, No. 6, June 1972, pp. 1325-1327.)
- Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K. and Derepovskii,
 N. T., "Dependence of the Parameters of a Plasmoid Obtained from a
 Coaxial Source on the Polarity of the Central Electrode," Soviet

- Physics--Technical Physics, Vol. 17, No. 12, June 1973, pp. 19381940. (English translation of Russian original in Zhurnal
 Tekhnicheskoi Fiziki, Vol. 42, No. 12, December 1972, pp. 24862489.)
- Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K., Derepovskii, N. T. and Khiznyak, N. A., "Similarity of Coaxial Sources," <u>Soviet</u>

 <u>Physics--Technical Physics</u>, Vol. 18, No. 6, December 1973, pp. 841-842. (English translation of Russian original in <u>Zhurnal</u>

 <u>Tekhnicheskoi Fiziki</u>, Vol. 43, No. 6, June 1973, pp. 1319-1320.)
- Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K., Derepovskii, N. T., D'Yakov, V. E. and Tereshchenko, F. F., "X-Ray Emission from a Coaxial Plasma Accelerator," <u>Soviet Physics--Technical Physics</u>, Vol. 21, No. 5, May 1976, pp. 586-588. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 46, No. 5, May 1976, pp. 1002-1005.)
- Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K. and Derepovskii,
 N. T., "Current Distribution in a Coaxial Accelerator," <u>Soviet</u>

 <u>Physics--Technical Physics</u>, Vol. 22, No. 4, April 1977, pp. 481-483.

 (English translation of Russian original in <u>Zhurnal Tekhnicheskoi</u>

 Fiziki, Vol. 47, No. 4, April 1977, pp. 801-805.)
- Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K. and Derepovskii, N. T., "Theory of Plasma Acceleration in a Coaxial Channel,"

 Magnetohydrodynamics, Vol. 12, No. 4, July 1977, pp. 466-470.

(English translation of Russian original in <u>Magnitnaya</u>
Gidrodinamika, Vol. 12, No. 4, October/December 1976, pp. 99-104.)

Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K. and Derepovskii, N. T., "Integral Model of a Pulsed Coaxial Plasma Gun," in <u>Plasma Physics and Problems of Controlled Thermonuclear Reactions</u>, Report No. UCRL-TRANS-11487, pp. 1-19, Tolok, V. T. (ed.), Lawrence Livermore Laboratory, Livermore, California, June 1979. (English translation of Russian original in <u>Fizika Plazmy i Problemy Upravlyayemykh Termoyadernykh Reaktsii</u>, No. I(6), Report No. KHFTI 77-39, pp. 4-10, Voprosy Atomnoi Nauki i Tekhniki-Seriya, Physical-Technical Institute, Academy of Sciences of the USSR, Kharkov, USSR, 1977.)

Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K., Derepovskii, N. T. and Nikol'skii, I. K., "Investigation of the Operation of a Pulsed Coaxial Plasma Gun in the MHD Approximation," in <u>Plasma</u>

<u>Physics and Problems of Controlled Thermonuclear Reactions</u>, Report

No. UCRL-TRANS-11487, pp. 20-40a, Tolok, V. T. (ed.), Lawrence

Livermore National Laboratory, Livermore, California, June 1979.

(English translation of Russian original in <u>Fizika Plazmy i Problemy</u>

<u>Upravlyayemykh Termoyadernykh Reaktsil</u>, No. I(6), Report No. KHFTI

77-39, pp. 11-18, Voprosy Atomnol Nauki i Tekhniki-Seriya, Physical-Technical Institute, Academy of Sciences of the USSR, Kharkov, USSR,

- Belikov, A. G., Goncharenko, D. K., Goncharenko, V. P. and Derepovskii, N. T., "Possibilities for Increasing the Efficiency and Plasma Velocity in a Pulsed Coaxial Accelerator," Report No. UCRL-TRANS-11616, Lawrence Livermore Laboratory, Livermore, California, July 1980. (English translation of Russian original in Vozmozhnosti Povysheniya K. P. D. i Skorosti Plazmy v Impul'snom Koaksial'nom Uskoritele, Report No. KHFTI 79-64, pp. 1-35, Khar'kov Order of Lenin Physicotechnical Institute, Ukrainian SSR, Academy of Sciences, Khar'kov, USSR, 1979.)
- Belikov, A. G., Goncharenko, V. P., Goncharenko, D. K., Derepovskij, N. T. and Nikolskij, I. K., "Measurements of Radial Density

 Distributions in the PPA Interelectrode Gap by CO₂-Laser

 Interferometry," in <u>Europhysics Conference Abstracts of the Tenth</u>

 <u>European Conference on Controlled Fusion and Plasma Physics, Moscow,</u>

 <u>USSR, 14-19 September 1981</u>, Vol. 5G, Part I, pp. 285-288, Merz, W.

 J. (series ed.), Thomas, G. (managing ed.), European Physical

 Society, Geneva, Switzerland, 1981.
- Belyaeva, I. F. and Filippov, N. V., "Some Results of the Investigation of High Energy Deuterons in the Plasma Focus Device," in <u>Proceedings</u> of the Second Topical Conference on Pulsed High-Beta Plasmas,

 Garching, near Munich, Germany, 3-6 July 1972, Report No. IPP 1/127,

 pp. 191-194, Lotz, W. (ed.), Max Planck Institut für Plasmaphysik,

 Garching, near Munich, Germany, July 1972.

- Belyaeva, I. F. and Filippov, N. V., "Location of Fast Deuterons in a Plasma Focus," <u>Nuclear Fusion</u>, Vol. 13, No. 6, December 1973, pp. 881-882.
- Berk, H. L., Hammer, J. H. and Shearer, J. W., "Reconnection Conditions for a Coaxial Plasma Gun," <u>The Physics of Fluids</u>, Vol. 25, No. 1, January 1982, pp. 102-106.
- Berkov, V. I. and Morozov, A. I., "Plasma Parameters in a Magnetoplasma Compressor in the Compression Zone," <u>JETP Letters</u>, Vol. 19, No. 1, 5 January 1974, pp. 32-33. (English translation of Russian original in <u>Zhurnal Eksperimental'nol i Teoreticheskol Fiziki, Pis'ma v</u>

 Redaktsiiu, Vol. 19, No. 1, 5 January 1974, pp. 52-54.)
- Bernard, A., Coudeville, A. and Watteau, J. P., "Neutron Yield of a Focus Discharge in Various Experiments," Physics Letters, Vol. 33A, No. 8, 28 December 1970, pp. 477-478.
- Bernard, A., Coudeville, A., Garçonnet, J. P., Jolas, A., De Mascureau, J., and Watteau, J. P., "Forward Laser Scattering by the Plasma Focus Device During the Neutron Emission," Physics Letters, Vol. 35A, No. 1, 3 May 1971, pp. 7-8.
- Bernard, A., Coudeville, A., Durantet, J., Jolas, A., Launspach, J., de Mascureau, J. and Watteau, J. P., "Neutron Measurements, Thompson Scattering and Holographic Interferometry on the Focus Experiment," in Proceedings of the Second Topical Conference on Pulsed High-Beta

- Plasmas, Garching, near Munich, Germany, 3-6 July 1972, Report No. IPP 1/127, pp. 147-150, Lotz, W. (ed.), Max Planck Institut fur Plasmaphysik, Garching, near Munich, Germany, July 1972.
- Bernard, A., Coudeville, A., Durantet, J., Jolas, A., Launspach, J., de Mascureau, J. and Watteau, J. P., "New Experimental Results on the Plasma Focus," in <u>Proceedings of the Fifth European Conference on Controlled Fusion and Plasma Physics, Grenoble, France, 21-25 August 1972</u>, Vol. 1, p. 65, Association EURATOM--Commissariat à l'Énergie Atomique, Centre d'Etudes Nucléaires de Grenoble, Grenoble, France, 1972.
- Bernard, A., Coudeville, A., Jolas, A., Launspach, J. and de Mascureau, J., "Experimental Studies of the Plasma Focus and Evidence for Nonthermal Processes," <u>The Physics of Fluids</u>, Vol. 18, No. 2, February 1975, pp. 180-194.
- Bernard, A., Coudeville, A., Garçonnet, J. P., Genta, P., Jolas, A.,
 Landure, Y., de Mascureau, J., Nail, M. and Vezin, R.,
 "Microinstabilities Connected with Neutron Emission and
 Electromagnetic Radiation in the Plasma Focus," in <u>Proceedings of the Seventh European Conference on Controlled Fusion and Plasma</u>
 Physics, Lausanne, Switzerland, 1-5 September 1975, Vol. I, p. 60,
 Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland,
 1975.

- Bernard, A., "Plasma Focus," in <u>Pulsed High Beta Plasmas</u>, Proceedings of the Third Topical Conference on Pulsed High Beta Plasmas, UKAEA Culham Laboratory, Abingdon, Oxfordshire UK, 9-12 September 1975, pp. 69-86, Evans, D. E. (ed.), Pergamon Press, Oxford, England, 1976.
- Bernard, A., Coudeville, A., Garçonnet, J. P., Jolas, A., de Mascureau, J. and Nazet, C., "Structure of Current Sheath and Fast Particle Beams in the Focus Experiment," in Proceedings of the Sixth
 1976, Vol. III, IAEA-CN-35, International Atomic Energy Agency, Vienna, Austria, May 1977; Nuclear Fusion supplement 1977, pp. 471-482.
- Bernard, A., Coudeville, A., Garconnet, J. P., Jolas, A., de Mascureau, J. and Nazet, C., "Anomalous Resistivity and Subsequent Fast Particles in the Plasma Focus," in <u>Proceedings of the Eighth</u>

 <u>European Conference on Controlled Fusion and Plasma Physics, Prague, Czechoslovakia, 19-23 September 1977</u>, Vol. I, p. 64, Institute of Plasma Physics, Czechoslovak Academy of Sciences, Prague, Czechoslovakia, 1977.
- Bernard, A., Cloth, P., Conrads, H., Coudeville, A., Gourlan, G., Jolas, A., Maisonnier, Ch. and Rager, J. P., "The Dense Plasma Focus--A High Intensity Neutron Source," <u>Nuclear Instruments and Methods</u>, Vol. 145, August/September 1977, pp. 191-218.

- Bernard, A., "Recent Developments in Plasma Focus Research,"
 Atomkernenergie, Vol. 32, No. 1, 1978, pp. 73-75.
- Bernard, A., Garçonnet, J. P., Jolas, A., Le Breton, J. P. and de Mascureau, J., "Turbulence Caused by the Interaction between Plasma and Electric Current in the Focus Experiment," in <u>Proceedings of the Seventh International Conference on Plasma Physics and Controlled Fusion Research, Innsbruck, Austria, 23-30 August 1978</u>, Vol. II, IAEA-CN-37, International Atomic Energy Agency, Vienna, Austria, May 1979; Nuclear Fusion supplement 1979, pp. 159-172.
- Bernard, A., Garçonnet, J. P., Jolas, A., Le Breton, J. P. and de Mascureau, J., "Light Ions Megampere Currents Created by Plasma Anomalous Resistance," in <a href="Proceedings of the Third International Topical Conference on High Power Electron and Ion Beam Research and Technology, Novosibirsk, USSR, 3-6 July 1979", Vol. I, pp. 269-276, Institute of Nuclear Physics, Novosibirsk, USSR, 1979.
- Bernard, A., Garconnet, J. P., Jolas, A., Le Breton, J. P. and de Mascureau, J., "Deuteron Beams in the Megaampere Range Created in a Turbulent Plasma," in Energy Storage, Compression, and Switching, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 307-316, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.

- Bernstein, M. J., "Millimeter and Nanosecond Resolution of Fast Neutrons from an Intense Plasma Discharge," Report No. SAMSO-TR-69-297, Space and Missile Systems Organization, Los Angeles AFS, California, 1

 July 1969.
- Bernstein, M. J., Meskan, D. A. and van Paassen, H. L. L., "Space, Time and Energy Distributions of Neutrons and X Rays from a Focused Plasma Discharge," Report No. SAMSO-TR-69-304, Space and Missile Systems Organization, Los Angeles AFS, California, 4 September 1969.
- Bernstein, M. J., Meskan, D. A. and van Paassen, H. L. L., "Space, Time and Energy Distributions of Neutrons and X-Rays from a Focused Plasma Discharge," <u>The Physics of Fluids</u>, Vol. 12, No. 10, October 1969, pp. 2193-2202.
- Bernstein, M. J., "Millimeter and Nanosecond Resolution of Fast Neutrons from an Intense Plasma Discharge," The Review of Scientific

 Instruments, Vol. 40, No. 11, November 1969, pp. 1415-1417.
- Bernstein, M. J. and Hai, F., "Evidence for Nonthermonuclear Neutron Production in a Plasma Focus Discharge," <u>Physics Letters</u>, Vol. 31A, No. 6, 23 March 1970, pp. 317-318.
- Bernstein, M. J., "Deuteron Acceleration and Neutron Production in Pinch Discharges," Physical Review Letters, Vol. 24, No. 13, 30 March 1970, pp. 724-727.

- Bernstein, M. J. and Hai, F., "The Influence of an Axial Magnetic Field on Neutron Production in a Plasma Focus Discharge," Report No. SAMSO-TR-70-284, Space and Missile Systems Organization, Los Angeles AFS, California, 15 July 1970.
- Bernstein, M. J. and Hai, F., "Evidence for Neutron Production via Enhanced Resistivity in a Plasma Focus," Physical Review Letters, Vol. 25, No. 10, 7 September 1970, pp. 641-642.
- Bernstein, M. J., "Acceleration Mechanism for Neutron Production in Plasma Focus and z-Pinch Discharges," The Physics of Fluids, Vol. 13, No. 11, November 1970, pp. 2858-2866.
- Bernstein, M. J. and Hai, F., "An X-Ray Pinhole Camera with Nanosecond Resolution," The Review of Scientific Instruments, Vol. 41, No. 12, December 1970, pp. 1843-1845.
- Bernstein, M. J. and Hai, F., "Neutron Production in a Plasma Focus

 Discharge with and without Axial Magnetic Field," The Physics of

 Fluids, Vol. 14, No. 5, May 1971, pp. 1010-1018.
- Bernstein, M. J., Lee, C. M. and Hai, F., "Time Correlations of X-Ray Spectra with Neutron Emission from a Plasma-Focus Discharge,"

 Physical Review Letters, Vol. 27, No. 13, 27 September 1971, pp. 844-847.

- Bernstein, M. J. and Comisar, G. G., "Neutron Energy and Flux

 Distributions from a Crossed-Field Acceleration Model of Plasma

 Focus and Z-Pinch Discharges," The Physics of Fluids, Vol. 15, No.

 4, April 1972, pp. 700-707.
- Bertalot, L., Bilbao, L., Bruzzone, H., Gentilini, A., Gourlan, C., Gullickson, R. L., Kroegler, H., Podda, S., Rager, J. P., Robouch, B. V. and Steinmetz, K., "Energy Distribution of Deuterons in the Frascati 1 MJ Plasma Focus Facility," in <u>Proceedings of the Ninth European Conference on Controlled Fusion and Plasma Physics, Oxford, England, 17-21 September 1979</u>, p. 108, Culham Laboratory, Oxford, England, 1979.
- Bertalot, L., Herold, H., Jäger, U., Mozer, A., Oppenländer, T.,

 Sadowski, M. and Schmidt, H., "Mass and Energy Analysis and SpaceResolved Measurements of Ions from Plasma Focus Devices," Physics

 Letters, Vol. 79A, No. 5/6, 27 October 1980, pp. 389-392.
- Bertalot, L., Deutsch, R., Herold, U., Jäger, U., Kaeppeler, H. J.,

 Mozer, A., Oppenlander, T., Ruckle, B., Sadowski, M., Schilling, P.

 and Schmidt, H., "Experiments on Plasma Focus Dynamics, Neutron

 Production and Ion Emission," in <u>Proceedings of the Eighth</u>

 International Conference on Plasma Physics and Controlled Fusion

 Research, Brussels, Belgium, 1-10 July 1980, Vol. II, IAEA-CN-38,

 International Atomic Energy Agency, Vienna, Austria, June 1981;

 Nuclear Fusion supplement 1981, pp. 177-185.

- Bertalot, L., Deutsch, R., Herold, H., Jäger, U., Mozer, A., Sadowski, M. and Schmidt, H., "Ion Emission Characteristics of Plasma Focus Devices," in <u>Europhysics Conference Abstracts of the Tenth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981</u>, Vol. 5G, Part I, pp. 261-264, Merz, W. J. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1981.
- Bertalot, L., Deutsch, R., Herold, H., Jäger, U., Mozer, A., Sadowski, M. and Schmidt, H., "Ion Emission Characteristics of Plasma Focus Experiments," Report No. IPF-81-9, Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1981.
- Bikmatov, R. G., Vasil'ev, V. I., Gavrilov, V. V., Goryacheva, N. V., Kiskin, A. D., Umrikhin, N. M. and Yaroslavskii, A. I., "Investigation of Neutron and X Radiation on the MK-200 Device," in Plasma Physics and Problems of Controlled Thermonuclear Reactions, Report No. UCRL-TRANS-11487, Tolok, V. T. (ed.), Lawrence Livermore Laboratory, Livermore, California, June 1979, pp. 78-86. (English translation of Russian original in Fizika Plazmy i Problemy

 Upravlyayemykh Termoyadernykh Reaktsii, No. I(6), Report No. KHFTI 77-39, Voprosy Atomnoi Nauki i Tekhniki-Seriya, Physical-Technical Institute, Academy of Sciences of the USSR, Kharkov, USSR, 1977.)

- Bilbao, L., Bruzzone, H. A. and Kelly, H. J., "Structure of a Plane and Stationary Ionizing Current Sheath," Plasma Physics and Controlled Fusion, Vol. 26, No. 12B, December 1984, pp. 1535-1548.
- Bilbao, L., Bruzzone, H. A. and Kelly, H. J., "Influence of Collisional and Radiative Processes in the Structure of a Plasma Focus Current Sheath," Plasma Physics and Controlled Fusion, Vol. 27, No. 11, November 1985, pp. 1207-1215.
- Bilbao, L., Kelly, H. and Bruzzone, H., "Radiation Transport in an Ionizing Current Sheath," <u>The Physics of Fluids</u>, Vol. 29, No. 12, December 1986, pp. 4182-4187.
- Bilbao, L., Bruzzone, H., Kelly, H. and Giudice, G., "On the Use of Simple Diagnostic Techniques for Studying the Structure of Plasma Current Sheaths," in <u>Plasma Physics and Controlled Thermonuclear Fusion</u>, Proceedings of the II Latin American Workshop on Plasma Physics and Controlled Thermonuclear Fusion, Medillin, Colombia, 16-28 February 1987, pp. 289-301, Krikorian, R. (ed.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1989.
- Bilbao, L., Bruzzone, H., Kelly, H. and García, G., "MHD Models for Current Sheaths," in <u>Plasma Physics and Controlled Thermonuclear</u>

 <u>Fusion</u>, Proceedings of the II Latin American Workshop on Plasma
 Physics and Controlled Thermonuclear Fusion, Medillin, Colombia, 1628 February 1987, pp. 302-312, Krikorian, R. (ed.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1989.

- Black, N. A. and Jahn, R. G., "Dynamic Efficiency of Pulsed Plasma Accelerators," <u>AIAA Journal</u>, Vol. 3, No. 6, June 1965, pp. 1209-1210.
- Bocancea, A., Chera, T., Mandache, N., Pantea, A. and Zoiţa, V., "Study of Medium Energy Ions in a Plasma Focus Device," in <u>Europhysics</u>

 <u>Conference Abstracts of the Tenth European Conference on Controlled</u>

 <u>Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981</u>, Vol.

 5G, Part I, pp. 273-276, Merz, W. J. (series ed.), Thomas, G.

 (managing ed.), European Physical Society, Geneva, Switzerland,

 1981.
- Bockle, G., Matl, K., Wenzel, N., Wolf, R., Batzner, R., Hinsch, H. and
 Hubner, K., "Laser Light Scattering at the POSEIDON Plasma Focus

 Device," in Proceedings of the Third International Workshop on

 Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13

 September 1983, Report No. IPF-83-6, pp. 123-126, Herold, H. and

 Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der

 Universität Stuttgart, Stuttgart, Federal Republic of Germany,

 September 1983.
- Borowiecki, M., Czekaj, S., Denus, S., Koziarkiewicz, W.,

 Skrzeczanowski, W., Socha, R., Tomaszewski, K. and Zadrożny, M.,

 "The Dynamics and Plasma Sheath Structure in the Plasma-Focus

 Device," in <u>Europhysics Conference Abstracts of the Eleventh</u>

 <u>European Conference on Controlled Fusion and Plasma Physics, Aachen,</u>

 Federal Republic of Germany, 5-9 September 1983, Vol. 7D, Part I,

- pp. 543-546, Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.
- Borowiecki, M., Czekaj, S., Denus, S., Koziarkiewicz, W.,

 Skrzeczanowski, W., Socha, R., Tomaszewski, K. and Zadrozny, M.,

 "Influence of Insulator on Plasma-Focus Discharge," in <u>Europhysics</u>

 <u>Conference Abstracts of the Twelfth European Conference on</u>

 <u>Controlled Fusion and Plasma Physics, Budapest, Hungary, 2-6</u>

 <u>September 1985</u>, Vol. 9F, part I, pp. 546-549, Pocs, L. and Montvai,

 A. (eds.), Methfessel, S. (series ed.), Thomas, G. (managing ed.),

 European Physical Society, Geneva, Switzerland, 1985.
- Borowiecki, M., Czekaj, S., Denus, S., Koziarkiewicz, W.,

 Skrzeczanowski, W., Socha, R., Tomaszewski, K., Zadrożny, M. and

 Kaliski, S., "Influence of Insulator on Plasma-Focus Discharge," in

 Proceedings of the Fourth International Workshop on Plasma Focus and

 Z-Pinch Research, Warsaw, Poland, 9-11 September 1985, pp. 86-89,

 Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and

 Laser Microfusion, Warsaw, Poland, 1985.
- Bostick, W. H., "Hall Currents and Vortices in the Coaxial Plasma

 Accelerator," <u>The Physics of Fluids</u>, Vol. 6, No. 11, November 1963,
 pp. 1598-1603.
- Bostick, W. H., "Mechanism and Dynamics of Coaxial Plasma Acceleration,"

 Report No. AFOSR 65-1532, Air Force Office of Scientific Research,

 Washington, D. C., July 1965.

- Bostick, W. H., Prior, W., Grunberger, L. and Emmert, G., "Pair Production of Plasma Vortices," <u>The Physics of Fluids</u>, Vol. 9, No. 10, October 1966, pp. 2078-2080.
- Bostick, W. H., "Mechanism and Dynamics of Coaxial Plasma Acceleration,"

 Report No. AFOSR-67-1062, Air Force Office of Scientific Research,

 Arlington, Virginia, March 1967.
- Bostick, W. H., Grunberger, L. and Prior, W., "Neutron Production by

 Vortex Annihilation in the Plasma Focus," in <u>Proceedings of the</u>

 <u>Third European Conference on Controlled Fusion and Plasma Physics,</u>

 <u>Utrecht, The Netherlands, 23-27 June 1969</u>, Symposium on Beam-Plasma

 Interactions, p. 120, Wolters-Noordhoff Publishing, Groningen, The

 Netherlands, 1969.
- Bostick, W. H., Grunberger, L., Nardi, V. and Prior, W., "Vorticity in the Current Sheath of the Plasma Coaxial Accelerator," in <a href="Proceedings of the Ninth International Conference on Phenomena in Ionized Gases, 1-6 September 1969, Bucharest, Rumania, p. 66, Musa, G., Popescu, A. and Nastase, L. (eds.), Editura Academiei Republicii Socialiste România, Bucharest, Rumania, 1969.
- Bostick, W. H., Grunberger, L., Prior, W. and Nardi, V., "Neutron Production by Vortex in the 'Plasma Focus'," in Contributions to the Fourth European Conference on Controlled Fusion and Plasma Physics,

 Rome, Italy, 31 August-4 September 1970, p. 108, Comitato Nazionale per l'Energia Nucleare, Rome, Italy, 1970.

- Bostick, W. H., Nardi, V., Grunberger, L. and Prior, W., "Observation of Solar Flare Type Processes in the Laboratory," in <u>Solar Magnetic Fields</u>, Symposium No. 43 of the International Astronomical Union, Paris, France, 31 August--4 September 1970, pp. 512-525, Howard, R. (ed.), Springer-Verlag, New York City, New York, 1971.
- Bostick, W. H., Nardi, V., Prior, W. J. and Rodriguez-Trelles, F., "On the Nature of Highly Localized X-Ray Sources in the Plasma Focus," in Proceedings of the Second Topical Conference on Pulsed High-Beta

 Plasmas, Garching, near Munich, Germany, 3-6 July 1972, Report No.

 IPP 1/127, pp. 155-158, Lotz, W. (ed.), Max Planck Institut fur

 Plasmaphysik, Garching, near Munich, Germany, July 1972.
- Bostick, W. H., Nardi, V. and Prior, W., "X-Ray Fine Structure of Dense Plasma in a Co-Axial Accelerator," <u>Journal of Plasma Physics</u>, Vol. 8, Part 1, August 1972, pp. 7-20.
- Bostick, W. H., Nardi, V., Prior, W. and Rodriguez-Trelles, F.,

 "Intensity Anisotropy and Fine Structure in the X-Ray Images of the

 Dense Plasma Focus," in <u>Proceedings of the Fifth European Conference</u>

 on Controlled Fusion and Plasma Physics, Grenoble, France, 21-25

 <u>August 1972</u>, Vol. 1, p. 70, Association EURATOM--Commissariat a

 l'Énergie Atomique, Centre d'Etudes Nucléaires de Grenoble,

 Grenoble, France, 1972.
- Bostick, W. H., Nardi, V., Prior, W. J. and Rodriguez-Trelles, F.,
 "Intensity Anisotropy and Fine Structure in the X-Ray Images of the

Dense Plasma Focus (II)" in <u>Proceedings of the Fifth European</u>

<u>Conference on Controlled Fusion and Plasma Physics, Grenoble,</u>

<u>France, 21-25 August 1972</u>, Vol. II, p. 239, Association EURATOM—
Commissariat à l'Énergie Atomique, Centre d'Etudes Nucleaires de Grenoble, Grenoble, France, 1972.

- Bostick, W. H., Nardi, V. and Prior, W., "Formation and Decay of Vortex Filaments in a Plasma Current Sheath," in <u>Dynamics of Ionized Gases</u>, Proceedings of the International Symposium on Dynamics of Ionized Gases sponsored by the International Union of Theoretical and Applied Mechanics, Tokyo, Japan, 13-17 September 1971, pp. 373-382, Lighthill, M. J., Imai, I. and Sato, H. (eds.), John Wiley & Sons, New York City, New York, 1973.
- Bostick, W. H., Nardi, V. and Prior, W., "Decay of the Magnetic Structure of Dense Plasma and X-Ray and Microwave Emission," in –4 August 1973, Vol. II, pp. 395-398, European Physical Society, Vienna, Austria, 1973.
- Bostick, W. H. and Nardi, V., "Study of the Role of Vortex Annihilation in the Mechanism of Neutron and X-Ray Production in the Plasma Focus," Report No. AFOSR-TR-75-0161, Air Force Office of Scientific Research, Arlington, Virginia, January 1975.

- Bostick, W. H., Nardi, V. and Prior, W., "Production and Confinement of High-Density Plasmas," <u>Annals of the New York Academy of Science</u>, Vol. 251, 8 May 1975, pp. 2-29.
- Bostick, W. H., Nardi, V. and Prior, W., "Observation of 16⁸ Gauss

 Fields and Production of 14-MeV D-T Neutrons in a Deuterium Plasma,"

 in <u>Proceedings of the Fifth International Conference on Plasma</u>

 <u>Physics and Controlled Nuclear Fusion Research, Tokyo, Japan, 11-15</u>

 <u>November 1974</u>, Vol. III, IAEA-CN-33, International Atomic Energy

 Agency, Vienna, Austria, October 1975; <u>Nuclear Fusion</u> supplement

 1975, pp. 109-121.
- Bostick, W. H., Nardi, V. and Prior, W., "On D(d,n)He⁴ Reactions in Focused Plasmas," in <u>Proceedings of the Seventh European Conference on Controlled Fusion and Plasma Physics, Lausanne, Switzerland, 1-5 September 1975</u>, Vol. I, p. 62, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, 1975.
- Bostick, W. H., Nardi, V., Prior, W., Rodriguez-Trelles, F., Cortese, C. and Gekelman, W., "Nonuniform Energy Concentration in Focused Plasmas," in Energy Storage, Compression, and Switching, Proceedings of the International Conference on Energy Storage, Compression, and Switching, Asti-Torino, Italy, 5-7 November 1974, pp. 261-270, Bostick, W. H., Nardi, V. and Zucker, O. S. F. (eds.), Plenum Press, New York City, New York, 1976.

- Bostick, W. H., Nardi, V., Prior, W. and Cortese, C., "Pulsed Radiation from Focused Plasmas," in <u>Pulsed High Beta Plasmas</u>, Proceedings of the Third Topical Conference on Pulsed High Beta Plasmas, UKAEA Culham Laboratory, Abingdon, Oxfordshire UK, 9-12 September 1975, pp. 407-412, Evans, D. E. (ed.), Pergamon Press, Oxford, England, 1976.
- Bostick, W. H., Nardi, V., Prior, W., Choi, J., Fillingham, P. J. and Cortese, C., "Radiation Damage (Blistering) in Al, Cu, Si by Exposure to a Plasma Focus Discharge," <u>Journal of Nuclear Materials</u>, Vol. 63, 1976, pp. 356-372.
- Bostick, W. H., Nardi, V. and Prior, W., "Space-Time Structure of
 Neutron and X-Ray Sources in a Plasma Focus," in <u>Proceedings of the</u>

 <u>Sixth International Conference on Plasma Physics and Controlled</u>

 <u>Fusion Research, Berchtesgaden, Federal Republic of Germany, 6-13</u>

 <u>October 1976</u>, Vol. III, IAEA-CN-35, International Atomic Energy

 Agency, Vienna, Austria, May 1977; <u>Nuclear Fusion</u> supplement 1977,

 pp. 497-505.
- Bostick, W. H., Nardi, V., Feugeas, J., Grunberger, L., Prior, W.,
 Cortese, C., Mezzetti, F. and Pedrielli, A., "Megagauss Fields and
 Current Pattern in Focussed Discharges," in Megagauss Physics and
 Technology, Proceedings of the Second International Conference on
 Megagauss Magnetic Field Generation and Related Topics, Washington,
 D. C., 30 May--1 June 1979, pp. 533-541, Turchi, P. J. (ed.), Plenum
 Press, New York City, New York, 1980.

- Bostick, W. H., Nardi, V., Prior, W., Feugeas, J., Bortolotti, A., Cortese, C., Mezzetti, F. and Pedrielli, F., "Production of GW Electron and Ion Beams by Focussed Discharges," in Energy Storage, Compression, and Switching, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 267-287, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- Bottoms, P. J., Carpenter, J. P., Mather, J. W., Ware, K. D. and Williams, A. H., "On the Mechanism of Neutron Production from the Dense Plasma Focus," in <u>Proceedings of the Third International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Novosibirsk, USSR, 1-7 August 1968</u>, Vol. II, IAEA-CN-24, International Atomic Energy Agency, Vienna, Austria, March 1969; Nuclear Fusion supplement 1969, pp. 67-75.
- Boulais, K. A., "Time Resolved Density Measurements in the University of Illinois Dense Plasma Focus Using Laser Interferometry," Master's thesis, University of Illinois, Urbana, Illinois, September 1987.
- Bourgarde, J. L., Cavailler, C., de Mascureau, J. and Miquel, J. L.,

 "Pulsed Soft X-Ray Source for Laser-Plasma Diagnostic Calibrations,"

 The Review of Scientific Instruments, Vol. 57, No. 8, August 1986,

 pp. 2165-2167.

- Braun, K., Fischer, H. and Michel, L., "Filaments in a 1 kJ Plasmafocus Experiment," in <u>Proceedings of the Second Topical Conference on Pulsed High-Beta Plasmas, Garching, near Munich, Germany, 3-6 July 1972</u>, Report No. IPP 1/127, pp. 183-186, Lotz, W. (ed.), Max Planck Institut für Plasmaphysik, Garching, near Munich, Germany, July 1972.
- Breev, V. V., Levitan, Yu. S., Murav'ev, E. V. and Panevin, I. G.,

 "Development of Laminar MHD Flow through Channels with Coaxial

 Electrodes. 1. Longitudinal Flow in a Tangential Magnetic Field,"

 Magnetohydrodynamics, pp. 299-308, Plenum Press, New York City, New

 York, 1976. (English translation of Russian original in Magnitnaya

 Gidrodinamika, Vol. 11, No. 3, July/September 1975, pp. 37-47.)
- Brennan, M. H., Robinson, L. C., Sharp, L. E. and Watson-Munro, C. N.,

 "The Production of Hydrogenous Plasmas by Hydromagnetic Ionizing

 Fronts," in <u>Proceedings of the Sixth International Conference on</u>

 <u>Phenomena in Ionized Gases, Paris, France, 8-13 July 1963</u>, Vol. IV,

 pp. 293-297, Hubert, P. and Cremieu-Alcan, E. (eds.)
- Brownell, J. H. and Freeman, B. L., "Plasma Sheath Driven Targets,"

 Applied Physics Letters, Vol. 36, No. 3, 1 February 1980, pp. 193194.
- Bruhns, H., "Recent Compact Toroid Research," <u>Plasma Physics and</u>
 Controlled Fusion, Vol. 28, No. 9A, September 1986, pp. 1389-1400.

- Bruslinskii, K. V., Gerlakh, N. I. and Morozov, A. I., "Effect of Finite Conductivity on Stationary Self-Contracting Plasma Flows," <u>Soviet Physics--Doklady</u>, Vol. 13, No. 6, December 1968, pp. 588-590.

 (English translation of Russian original in <u>Doklady Akademii Nauk</u> SSSR, Vol. 180, No. 6, June 1968, pp. 1327-1330.)
- Brushlinskii, K. V., Gerlakh, N. I. and Morozov, A. I., "Computation of Unsteady Two-Dimensional Flows of a Plasma of Finite Conductivity with Allowance for the Hall Effect," Magnetohydrodynamics, pp. 1-4, Consultants Bureau, a division of Plenum Press, New York City, New York, 1968. (English translation of Russian original in Magnitnaya Gidrodinamika, Vol. 3, No. 1, January/March 1967, pp. 3-8.)
- Brushlinsky, K. V., "Numerical Simulation of Two-Dimensional Plasma Flow in Channels," <u>Computer Methods in Applied Mechanics and Engineering</u>, Vol. 6, No. 11, November 1975, pp. 292-307.
- Brushlinskii, K. V., Morozov, A. I., Palelchik, V. V. and Savel'ev, V. V., "Two-Dimensional Compressional Plasma Flow in Coaxial Channel,"

 <u>Soviet Journal of Plasma Physics</u>, Vol. 2, No. 4, July/August 1976, pp. 291-296. (English translation of Russian original in <u>Fizika</u>

 <u>Plasmy</u>, Vol. 2, No. 4, July/August 1976, pp. 531-541.)
- Brushlinsky, K. V. and Savel'ev, V. V., "Numerical Simulations of Two-Dimensional Plasma Flows," <a href="Proceedings of the Sixth International Conference on Numerical Methods in Fluid Dynamics, Tbilisi, Georgian SSR, USSR, 21-24 June 1978, pp. 103-107, Cabannes, H., Holt, M. and

- Rusanov, V. (eds.), Springer-Verlag, Berlin, Federal Republic of Germany, 1979.
- Bruzzone, H., Gratton, R., Kelly, H., Milanese, M. and Pouzo, J.,

 "Experimental Results of a Low Energy Plasma Focus," in Energy

 Storage, Compression, and Switching, Proceedings of the

 International Conference on Energy Storage, Compression, and

 Switching, Asti-Torino, Italy, 5-7 November 1974, pp. 255-258,

 Bostick, W. H., Nardi, V. and Zucker, O. S. F. (eds.), Plenum Press,

 New York City, New York, 1976.
- Bruzzone, H. A., Kelly, H. J., Milanese, M. M. and Pouzo, J. O., "A Possible Correlation of the Neutron Yield to the Electromechanical Work in Mather-Type Plasma Focus Devices," <u>Nuclear Fusion</u>, Vol. 16, No. 5, May 1976, pp. 870-873.
- Bruzzone, H., Delellis, R., Gratton, R., Kelly, H., Milanese, M. and Pouzo, J., "Some Properties of the Neutron Yield in a Low-Energy Plasma Focus," in <u>Proceedings of the Sixth International Conference on Plasma Physics and Controlled Fusion Research, Berchtesgaden, Federal Republic of Germany, 6-13 October 1976</u>, Vol. III, IAEA-CN-35, International Atomic Energy Agency, Vienna, Austria, May 1977; Nuclear Fusion supplement 1977, pp. 491-493.
- Bruzzone, H., Kelly, H., Pouzo, J., Gratton, R. and Gratton, J.,
 "Optimal Regimes of Mather-Type Plasma Focus Devices," in Energy
 Storage, Compression, and Switching, Vol. 2, Proceedings of the

Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 289-306, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.

- Bruzzone, H. A. and Kelly, H. J., "Comment of Published Paper
 'Theoretical Model and Computer Simulations of Electrical Signals
 for Magnetically Driven Plasma Sheaths'," Plasma Physics and
 Controlled Fusion, Vol. 30, No. 7, July 1988, pp. 913-916.
- Bruzzone, H., "Experimental Study of the Breakdown Phase in Coaxial Plasma Guns," in <u>Plasma Physics and Controlled Thermonuclear Fusion</u>, Proceedings of the II Latin American Workshop on Plasma Physics and Controlled Thermonuclear Fusion, Medillin, Colombia, 16-28 February 1987, pp. 313-321, Krikorian, R. (ed.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1989.
- Brzosko, J. S., Conrads, H., Rager, J. P., Robouch, B. V. and Steinmetz, K., "Characteristics of High Energy Deuterons in the Frascati 1-MJ Plasma Focus," in <u>Europhysics Conference Abstracts of the Eleventh European Conference on Controlled Fusion and Plasma Physics, Aachen, Federal Republic of Germany, 5-9 September 1983</u>, Vol. 7D, Part I, pp. 481-483, Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.
- Brzosko, J. S., Klobukowska, J. and Robouch, B. V., "Plasma Focus Evolution in Time as Seen from Its Neutron, Gamma- and X-Ray

Activities," in <u>Proceedings of the Third International Workshop on</u>

<u>Plasma Focus Research</u>, Stuttgart, Federal Republic of Germany, 12-13

<u>September 1983</u>, Report No. IPF-83-6, pp. 43-46, Herold, H. and

Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der

Universität Stuttgart, Stuttgart, Federal Republic of Germany,

September 1983.

- Brzosko, J. S., Conrads, H., Rager, J. P., Robouch, B. V. and Steinmetz, K., "Investigations of High-Energy Deuterons in a Dense Plasma Focus Device by Means of Neutrons Emitted in the ⁷Li + D Process," <u>Nuclear Technology/Fusion</u>, Vol. 5, No. 2, March 1984, pp. 209-223.
- Brzosko, J. S., Klobukowska, J. and Robouch, B. V., "Time Sequences in the Neutron, γ- and X-Ray Emissions in the Frascati Plasma Focus," Report No. RF/FUS/84/6, Associazione EURATOM--Comitato Nazionale Energia Nucleare sulla Fusione, Centro di Frascati, Rome, Italy, September 1984.
- Brzosko, J. S., Robouch, B. V. and Klobukowska, J., "A Macroscopic Study of the Neutron, Gamma- and X-Ray Emissivity in the Frascati Plasma Focus," Fusion Technology, Vol. 12, No. 1, July 1987, pp. 71-91.
- Bugrova, A. I., Morozov, A. I. and Kharchevnikov, V. K., "Wall-Conductivity Effects in the Channel of a Closed-Drift-Circuit Plasma Accelerator," Soviet Technical Physics Letters, Vol. 9, No. 1,

 January 1983, pp. 1-2. (English translation of Russian original in

- <u>Pis'ma v Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 9, No. 1, 12 January 1983, pp. 3-6.)
- Buller, T. L., Turnbull, R. J. and Kim, K., "Acceleration of Solid Pellets Using a Plasma Gun," <u>Applied Physics Letters</u>, Vol. 34, No. 12, 15 June 1979, pp. 826-828.
- Buneman, O., "Models of Collisionless Shock Fronts," <u>The Physics of</u> Fluids, Vol. 7, No. 11, Part 2, November 1964, pp. S3-S8.
- Burdonsky, I. N., Vasileva, R. P., Pergament, M. I. and Yaroslavsky, A.
 I., "Mechanism of Plasma Focus Formation in a Coaxial Injector," in

 Proceedings of the Fourth International Conference on Plasma Physics

 and Controlled Nuclear Fusion Research, Madison, Wisconsin, 17-23

 June 1971, Vol. I, IAEA-CN-28, International Atomic Energy Agency,

 Vienna, Austria, October 1971; Nuclear Fusion supplement 1971, pp.
 601-608.
- Burdonskiy, I. N. and Vasileva, R. P., "Plasma Focus Shaping Mechanism of Coaxial Injector," Report No. FTD-HT-23-1087-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 22 October 1974.

 (English translation of Russian original in <u>Plazmennyye Uskoriteli</u>, <u>Izd vo Mashinostroyeniye</u>, pp. 244-246, Moscow, USSR, 1973.)
- Burkhardt, C. P., "Electric and Magnetic Field Measurements in a Flowing Plasma," Master's thesis, University of New Mexico, Albuquerque, New Mexico, December 1983.

- Burkhardt, L. C., Dunaway, R. E., Mather, J. W., Phillips, J. A., Sawyer, G. A., Stratton, T. F., Stovall, E. J., Jr. and Tuck, J. L., "Pinch Effect," <u>Journal of Applied Physics</u>, Vol. 28, No. 5, May 1957, pp. 519-521.
- Burkhardt, L. C. and Lovberg, R. H., "Current Sheet in a Coaxial Plasma Gun," The Physics of Fluids, Vol. 5, No. 3, March 1962, pp. 341-347.
- Burnett, J. C., Meyer, J. and Rankin, G., "Time Resolved X-Ray

 Photography of a Dense Plasma Focus," <u>Canadian Journal of Physics</u>,

 Vol. 55, No. 3, 1 February 1977, pp. 194-197.
- Burtsev, V. A., Litunovskii, V. N. and Nadgornaya, M. P., "Coaxial Plasma Accelerator with Uniform Pressure Distribution," <u>Soviet Physics--Technical Physics</u>, Vol. 17, No. 8, February 1973, pp. 1363-1368. (English translation of Russian original in <u>Zhurnal</u> Tekhnicheskoi Fiziki, Vol. 42, No. 8, August 1972, pp. 1706-1714.)
- Burtsev, V. A., Litunovskii, V. N. and Nadgornaya, M. P., "Azimuthal Symmetry in a Coaxial Plasma Injector," <u>Soviet Physics--Technical Physics</u>, Vol. 17, No. 10, April 1973, pp. 1670-1676. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 42, No. 10, October 1972, pp. 2105-2114.)
- Burtsev, V. A., Litunovskii, V. N. and Nadgornaya, M. P., "Coaxial Plasma Injector with Programmed Injection," <u>Soviet Physics--</u>
 <u>Technical Physics</u>, Vol. 19, No. 6, December 1974, pp. 736-740.

- (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 44, No. 6, June 1974, pp. 1168-1175.)
- Burtsev, V. A., Zhukov, A. P., Kuz'min, V. A., Litunovskii, V. N.,
 Ovsyannikov, V. A., Popytaev, A. N. and Titov, V. A., "Plasma Focus
 Powered by an Inductive-Capacitive Storage Bank," <u>Soviet Technical</u>
 Physics Letters, Vol. 11, No. 5, May 1985, pp. 232-233. (English translation of Russian original in <u>Pis'ma v Zhurnal Tekhnicheskoi</u>
 Fiziki, Vol. 11, No. 5, 12 May 1985, pp. 558-561.)
- Burtsev, V. A., Kalinin, N. V., Kuz'min, V. A., Litunovsky, V. N.,
 Ovsyannikov, V. A., Potiaev, A. N. and Totov, V. A., "Plasma Focus
 with Inductive-Capacitive Energy Storage Supply," in <u>Proceedings of
 the Fourth International Workshop on Plasma Focus and Z-Pinch
 Research, Warsaw, Poland, 9-11 September 1985</u>, pp. 235-238, Denus,
 S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser
 Microfusion, Warsaw, Poland, 1985.
- Butler, T. D., Henins, I., Marshall, J. and Morse, R., "Coaxial Snowplow Discharge," in <u>Proceedings of the APS Topical Conference on Pulsed High-Density Plasmas, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 19-22 September 1967</u>, Report No. LA-3770, pp. C7-1-C7-4, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 29 September 1967.

- Butler, T. D. and Cook, J. L., "Numerical Analysis of a Coaxial Accelerator," <u>The Physics of Fluids</u>, Vol. 11, No. 10, October 1968, pp. 2286-2288.
- Butler, T. D., Henins, I., Jahoda, F. C., Marshall, J. and Morse, R. L.,

 "Coaxial Snowplow Discharge," in <u>Status Report of the LASL</u>

 <u>Controlled Thermonuclear Research Program for 12-Month Period Ending</u>

 <u>October 31, 1968</u>, Los Alamos Scientific Laboratory, Los Alamos, New

 Mexico, 15 January 1969, pp. 35-48.
- Butler, T. D., Henins, I., Jahoda, F. C., Marshall, J. and Morse, R. L., "Coaxial Snowplow Discharge," <u>The Physics of Fluids</u>, Vol. 12, No. 9, September 1969, pp. 1904-1916.
- Bykovsky, U. A. and Lagoda, V. B., "Shaping of Local High-Temperature

 Plasma Formation in Powerful Pinching Discharge," in <u>Europhysics</u>

 <u>Conference Abstracts of the Tenth European Conference on Controlled</u>

 <u>Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981</u>, Vol.

 5G, Part I, pp. 293-296, Merz, W. J. (series ed.), Thomas, G.

 (managing ed.), European Physical Society, Geneva, Switzerland,

 1981.
- Castillo, F. and Herrera, J. J. E., "Preliminary Report on the FN Dense Plasma Focus," in <u>Small Scale Physics Experiments</u>, Proceedings of Symposium on Small Scale Laboratory Plasma Experiments, Spring College on Plasma Physics, 25 May--19 June 1987, pp. 3-14, Lee, S.

- and Sakanaka, P. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Cebanu, A., Chera, T., Dinu, L., Ionescu, G., Ionescu-Bujor, T.,
 Iordanescu, A., Mandache, N., Tsois, N., Vlad, M., Zaharescu, M.,
 Zambreanu, V. and Zoita, V., "Generation and Diagnostics of
 Energetic Particles and Plasmas in Focus Devices," in <u>Proceedings of the Eighth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Brussels, Belgium, 1-10 July 1980</u>, Vol. II,
 IAEA-CN-38, International Atomic Energy Agency, Vienna, Austria,
 June 1981; Nuclear Fusion supplement 1981, pp. 197-206.
- Chakrabarty, C. K., Moo, S. P. and Lee, S., "Target Technique for the Study of Neutron Production Mechanism in a Focus Plasma," in <u>Laser and Plasma Technology</u>, Proceedings of the Third Tropical College on Applied Physics, University of Malaya, Kuala Lumpur, Malaysia, 30 May--18 June 1988, pp. 468-475, Wong, C. S., Lee, S., Tan, B. C., Chew, A. C., Low, K. S. and Moo, S. P. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1990.
- Chandrasekhar, S. and Woltjer, L., "On Force-Free Magnetic Fields," in Proceedings of the National Academy of Sciences, Vol. 44, No. 4, 15 April 1958, pp. 285-289.
- Chang, C. T., "Shock Wave Phenomena in Coaxial Plasma Guns," <u>The Physics</u> of Fluids, Vol. 4, No. 9, September 1961, pp. 1085-1096.

- Chen, Y. H. and Lee, S., "Coaxial Plasma Gun in Mode 1 Operation,"

 <u>International Journal of Electronics</u>, Vol. 35, No. 3, September 1973, pp. 341-352.
- Chen, Y. H., Decker, G., Flemming, L., Kies, W., Oppenlander, T., Pross, G., Ruckle, B., Schmidt, H., Shakhatre, M. and Trunk, M.,

 "Enhancement of Neutron Yield from Focus Devices," in <u>Proceedings of the Eighth European Conference on Controlled Fusion and Plasma</u>

 <u>Physics, Prague, Czechoslovakia, 19-23 September 1977</u>, Vol. I, p.
 65, Institute of Plasma Physics, Czechoslovak Academy of Sciences,

 Prague, Czechoslovakia, 1977.
- Cheng, D. Y., "Plasma Deflagration and the Properties of a Coaxial Plasma Deflagration Gun," <u>Nuclear Fusion</u>, Vol. 10, No. 3, September 1970, pp. 305-317.
- Cheng, D. Y., "Application of a Deflagration Plasma Gun as a Space Propulsion Thruster," <u>AIAA Journal</u>, Vol. 9, No. 9, September 1971, pp. 1681-1685.
- Cheng, D. Y. and Wang, P., "The Properties of a Coaxial Deflagration Plasma Gun," in <u>Proceedings of the Second Topical Conference on Pulsed High-Beta Plasmas, Garching, near Munich, Germany, 3-6 July 1972</u>, Report No. IPP 1/127, pp. 257-260, Lotz, W. (ed.), Max Planck Institut für Plasmaphysik, Garching, near Munich, Germany, July 1972.

- Cheng, D. Y., "Discharge Modes of Pulsed High Energy and High Density

 Plasma Injection Source," in <u>Proceedings of the Second Symposium on Ion Sources and Formation of Ion Beams, Berkeley, California, 22-25 October 1974</u>, Report No. LBL-3399 (Supplement), pp. I-8-1-I-8-6,

 Pezzotti, C. P. (ed.), Lawrence Berkeley Laboratory, Berkeley,
 California, 1974.
- Cheng, D. Y., "The Application of a Deflagration Gun to Fusion Systems," in <u>Proceedings of the High-Beta Workshop, Los Alamos Scientific</u>

 <u>Laboratory, Los Alamos, New Mexico, 28 July--1 August 1975</u>, Report

 No. ERDA-76/108, pp. 680-701, Oktay, E. (ed.), Energy Research and

 Development Administration, Washington, D. C., 1976.
- Cheng, D. Y., Tripathi, P. P. and Chang, C. N., "Prospects for

 Deflagration Guns," in <u>Proceedings of the Fusion Fueling Workshop,</u>

 <u>Princeton, New Jersey, 1-3 November 1978</u>, Report No. CONF-771129,

 pp. 6-11, U. S. Department of Energy, Washington, D. C., March 1978.
- Cheng, D. Y., Chang, C. N. and Tripathi, P. P., "A Study of the High-Density High-Energy Plasma-Producing Methods and Physical-Property Measurements and Its Application for Thermonuclear Reaction," Report No. DOE/ET/53061-T1, Department of Energy, Washington, D. C., 29 April 1980.
- Cheng, D. Y., Tripathi, P. P. and Chang, C. N., "Recent Development in High Energy Plasma Production Techniques by the Deflagration Plasma Gun," in Energy Storage, Compression, and Switching, Vol. 2,

Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 807-829, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.

- Cheng, D. Y. and Chang, C. N., "Deflagration Plasma Thruster," in Orbit-Raising and Maneuvering Propulsion: Research Status and Needs, Vol. 89, Progress in Astronautics and Aeronautics, pp. 371-384, Caveny, L. H. (ed.), American Institute of Aeronautics and Astronautics, Inc., New York City, New York, 1984.
- Chernyshev, V. K., Tsukerman, V. A., Gerasimov, V. M., Zharinov, E. I., Makeev, N. G., Demidov, A. D., Vakhrushev, V. V., Volkov, G. I., Demidov, V. A., Ivanov, V. A., Kazakov, S. A., Moskvichev, N. N., Cheremukhin, G. N., Frolov, A. A., Rumyantsev, V. G., Pelykh, A. N. and Buzin, V. N., "Change in the Parameters of a Plasma Focus when the Capacitive Energy Source is Replaced by an Inductor," Soviet Physics—Technical Physics, Vol. 31, No. 5, May 1986, pp. 558-559. (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 56, No. 5, May 1986, pp. 918-920.)
- Chicherov, V. M., "Hydrogen Density Distribution in a Coaxial Plasma Injector before Application of High Voltage to the Electrodes,"

 <u>Soviet Physics--Technical Physics</u>, Vol. 11, No. 6, December 1966, pp. 777-778. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 36, No. 6, June 1966, pp. 1055-1057.)

- Chow, S. P., Lee, S. and Tan, B. C., "Current Sheath Studies in a Co-Axial Plasma Focus Gun," <u>Journal of Plasma Physics</u>, Vol. 8, Part 1, August 1972, pp. 21-31.
- Chwaszczewski, S., "Interaction of Fast Plasmoids with Magnetic Field Barriers," Report No. AEC-TR-6673, pp. 67-85, U. S. Atomic Energy Commission, Oak Ridge, Tennessee, 1966. (English translation of Russian original in <u>Nuclear Fusion</u>, Vol. 6, No. 1, International Atomic Energy Agency, Vienna, Austria, 1966, pp. 56-63.)
- Clark, J. G., "Tapered Coaxial Plasma Gun Electrodes," Report No. AFWL-TR-72-39, Air Force Weapons Laboratory, Kirtland AFB, New Mexico, June 1972.
- Cloth, P., Conrads, H., Demmeler, M. and Hecker, R., "A Dense Plasma

 Focus as a Neutron Source for Pulsed Measurements in a Blanket," in

 Proceedings of the Sixth Symposium on Fusion Technology, Aachen,

 Federal Republic of Germany, 22-25 September 1970, pp. 525-531,

 European Atomic Energy Community (EURATOM), Commission of the

 European Communities, Luxembourg, December 1970.
- Cloth, P., Conrads, H., Ihle, H. R., Gourlan, C., Maisonnier, Ch. and Robouch, B. V., "The Perspectives of a Dense Plasma Focus as a High Intensity Neutron Source," in <a href="Proceedings of the International Conference on Radiation Test Facilities for the CTR Surface and Materials Program, Argonne National Laboratory, 15-18 July 1975,

- Report No. ANL/CTR-75-4, pp. 498-526, Argonne National Laboratory, Argonne, Illinois, 1975.
- Cloth, P., Conrads, H., Giesen, B. and Shongen, F., "DPF Julich II-
 Testbed for Developing a Plasma Neutron Source," <u>Proceedings of the Ninth Symposium on Fusion Technology, Garmisch-Partenkirchen,</u>

 <u>Federal Republic of Germany, 14-18 June 1976</u>, pp. 597-604, Pergamon Press, Oxford, 1976.
- Cloth, P. and Conrads, H., "Neutronics of a Dense-Plasma Focus--An Investigation of a Fusion Plasma," <u>Nuclear Science and Engineering</u>, Vol. 62, 1977, pp. 591-600.
- Comisar, C. C., "Hydrodynamic Instabilities in the Dense Plasma Focus,"

 The Physics of Fluids, Vol. 12, No. 5, May 1969, pp. 1000-1007.
- Connerade, J. P., Peacock, N. J. and Speer, R. J., "Observation and Identification of Highly Stripped Ion Transitions Produced in the Plasma Focus," <u>Nuclear Instruments and Methods</u>, Vol. 90, December 1970, pp. 163-166.
- Conrads, H., Cloth, P., Demmeler, M. and Hecker, R., "Velocity

 Distribution of the Ions Producing Neutrons in a Plasma Focus," The

 Physics of Fluids, Vol. 15, No. 1, January 1972, pp. 209-211.
- Conrads, H. and Cloth, P., "Neutron Emitting Area of a Plasma Focus," in Proceedings of the Fifth European Conference on Controlled Fusion

- and Plasma Physics, Grenoble, France, 21-25 August 1972, Vol. 1, p. 67, Association EURATOM--Commissariat à l'Energie Atomique, Centre d'Etudes Nucleaires de Grenoble, Grenoble, France, 1972.
- Conrads, H., Gollwitzer, D. and Schmidt, H., "Electron Density of a Plasma Focus and the Radiation Emitted at the Plasma Frequency and its Harmonics," in <u>Proceedings of the Sixth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 30 July--4 August 1973</u>, Vol. I, pp. 367-370, European Physical Society, Vienna, Austria, 1973.
- Conte, D., Bird, G., Boyer, C., Davis, J., Seiler, S. and Turchi, P.,

 "Design and Operation of a Coaxial Plasma Gun at Magnetic Fields

 Exceeding 0.5 Megagauss," in Proceedings of the Ninth Symposium on

 Engineering Problems of Fusion Research, Chicago, Illinois, 26-29

 October 1981, Vol. 2, pp. 1502-1505, Choi, C. K. (ed.), Institute of

 Electrical and Electronics Engineers, New York City, New York, 1981.
- Cook, C. S., Gloersen, P., Gorowitz, B. and Karras, T. W., "Correlation of Propellent Density Gradients and Capacitance with the Efficiency of a Plasma Gun," <u>AIAA Journal</u>, Vol. 8, No. 9, September 1970, pp. 1537-1543.
- Cormack, G. D., "Acceleration and Deceleration of Plasmas in Electromagnetic Shock-Tubes," <u>Canadian Journal of Physics</u>, Vol. 41, No. 10, October 1963, pp. 1591-1603.

- Coudeville, A., Jolas, A. and Watteau, J. P., "Production of Neutrons by a Non-Cylindrical Z Pinch," in <u>Proceedings of the APS Topical</u>

 <u>Conference on Pulsed High Density Plasmas, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 19-22 September 1967, Report No. LA-3770, pp. C3-1-C3-6, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 29 September 1967.</u>
- Czekaj, S., Denus, S., Koziarkiewicz, W., Nawrot, W., Skrzeczanowski, W., Socha, R., Tomaszewski, K. and Zadrozny, M., "Investigation of the Breakdown and Run-Down Phases of the DPF Discharge," in Europhysics Conference Abstracts of the Tenth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981, Vol. 5G, Part I, pp. 317-320, Merz, W. J. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1981.
- Czekaj, S., Denus, S., Kasperczuk, A., Miklaszewski, R., Paduch, M., Sledziński, S., Wolski, J. and Zadrożny, M., "Influence of External Bz Magnetic Field Upon the Process of Creation and Disintegration of Plasma Column in Plasma-Focus Device," in Europhysics Conference
 Abstracts of the Tenth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981, Vol. 5G, Part I, pp. 321-324, Merz, W. J. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1981.
- Czekaj, S., Denus, S., Kasperczuk, A., Miklaszewski, R., Paduch, M.,
 Sledzinski, S., Tomaszewski, K., Wereszczynski, Z. and Wolski, J.,

"Investigation of Connections between the Plasma Column Evolution and the Neutron Emission in the Plasma Focus Device," in <u>Europhysics</u>

<u>Conference Abstracts of the Eleventh European Conference on</u>

<u>Controlled Fusion and Plasma Physics, Aachen, Federal Republic of</u>

<u>Germany, 5-9 September 1983</u>, Vol. 7D, Part I, pp. 469-472,

Methfessel, S. (series ed.), Thomas, G. (managing ed.), European

Physical Society, Geneva, Switzerland, 1983.

- Czekaj, S., Denus, S. and Szydłowski, A., "Measurement of Fast Deuteron Emission from a Plasma Focus Device," in <u>Europhysics Conference</u>

 <u>Abstracts of the Eleventh European Conference on Controlled Fusion and Plasma Physics, Aachen, Federal Republic of Germany, 5-9

 September 1983</u>, Vol. 7D, Part I, pp. 539-542, Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.
- Czekaj, S., Denus, S., Koziarkiewicz, W., Skrzeczanowski, W., Socha, R. and Zadrozny, M., "The Plasma Sheath Radiation During the Collapse and Pinch Phases of Plasma-Focus Discharge," in <u>Proceedings of the 17th International Conference on Phenomena in Ionized Gases, Budapest, Hungary, 8-12 July 1985</u>, Vol. 2, pp. 1070-1072, Bakos, J. S. and Sorlei, Z. (eds.)
- Czekaj, S., Denus, S., Kasperczuk, A., Miklaszewski, R., Paduch, M.,
 Pisarczyk, T. and Wereszczyński, Z., "The Study of Plasma Dynamics
 in the PF-300 Device by Means of Laser Diagnostics," in <u>Europhysics</u>
 Conference Abstracts of the Twelfth European Conference on

- Controlled Fusion and Plasma Physics, Budapest, Hungary, 2-6

 September 1985, Vol. 9F, Part I, pp. 550-553, Pocs, L. and Montvai,

 A. (eds.), Methfessel, S. (series ed.), Thomas, G. (managing ed.),

 European Physical Society, Geneva, Switzerland, 1985.
- Czekaj, S., Denus, S., Wolski, J. and Zadrozny, M., "Influence of Electrodes Geometry on PF-Discharge Parameters," in <u>Proceedings of the Fourth International Workshop on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September 1985</u>, pp. 82-85, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Czekaj, S., Denus, S., Kasperczuk, A., Miklaszewski, R., Paduch, M., Pisarczyk, T., Sledziński, S., Szydłowski, A. and Wereszczyński, Z., "Investigation of Collapse, Pinch Dynamics and Fast Particle Emission in a Plasma Focus Discharge," in Proceedings of the Eleventh International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Kyota, Japan, 13-20 November 1986, Vol. 2, IAEA-CN-47, International Atomic Energy Agency, Vienna, Austria, July 1987; Nuclear Fusion supplement 1987, pp. 593-600.
- Czekaj, S., Kasperczuk, A., Miklaszewski, R., Paduch, M., Pisarczyk, T. and Wereszczynski, Z., "Diagnostic Method for the Magnetic Field Measurement in the Plasma Focus Device," Plasma Physics and Controlled Fusion, Vol. 31, No. 4, April 1989, pp. 587-594.

- Dailey, C. L., "Inductive Pulsed Plasma Current Sheets," Report No.

 AFOSR 70-1730TR, Air Force Office of Scientific Research, Arlington,

 Virginia, June 1970.
- Dangor, A. E., "High Density Z-Pinches," Plasma Physics and Controlled Fusion, Vol. 28, No. 12B, December 1986, pp. 1931-1942.
- Dattner, A. and Eninger, J., "Studies of a Coaxial Plasma Gun," The

 Physics of Fluids, Vol. 7, No. 11, Part 2, November 1964, pp. S41S43.
- de la Fuente, H., "Experiments on Plasma Injection and Confinement in a Toroidal Octupole Magnetic Field," PhD dissertation, University of Wisconsin, Madison, Wisconsin, August 1970.
- de la Fuente, H. and Forsen, H. K., "Small Coaxial Gun for Plasma
 Injection Studies," <u>The Review of Scientific Instruments</u>, Vol. 42,
 No. 10, October 1971, pp. 1453-1455.
- Decker, G., Pross, G., Ruckle, B., Schmidt, H. and Shakhatre, M.,

 "Recent Experimental Results of Plasma Focus Research at Stuttgart,"

 in <u>Pulsed High Beta Plasmas</u>, Proceedings of the Third Topical

 Conference on Pulsed High Beta Plasmas, UKAEA Culham Laboratory,

 Abingdon, Oxfordshire UK, 9-12 September 1975, pp. 401-405, Evans,

 D. E. (ed.), Pergamon Press, Oxford, England, 1976.

- Decker, G. and Wienecke, R., "Plasma Focus Devices," Physica, Vol. 82C, 1976, pp. 155-164.
- Decker, G., Nahrath, B., Oppenlander, T., Pross, G., Ruckle, B.,

 Schmidt, H., Shakhatre, M. and Trunk, M., "Dynamics of 120 and 20 kV

 Focus Devices with Respect to Density and Current Distribution and

 Neutron and X-Ray Emission," in Proceedings of the Sixth

 International Conference on Plasma Physics and Controlled Fusion

 Research, Berchtesgaden, Federal Republic of Germany, 6-13 October

 1976, Vol. III, IAEA-CN-35, International Atomic Energy Agency,

 Vienna, Austria, May 1977; Nuclear Fusion supplement 1977, pp. 441-446.
- Decker, G., Herold, H., Kaeppeler, H. J., Kies, W., Maysenholder, W.,
 Nahrath, B., Oppenlander, T., Pross, G., Ruckle, B., Sauerbrunn, A.,
 Schilling, P., Schmidt, H., Shakhatre, M., Trunk, M., Steinmetz, K.,
 Bruhns, H., Ehrhardt, J., Hubner, K., Kirchesch, P. and Mechler, G.,
 "Neutron Emission Parameters in Plasma Focus Devices," in
 Proceedings of the Seventh International Conference on Plasma
 Physics and Controlled Fusion Research, Innsbruck, Austria, 23-30
 August 1978, Vol. II, IAEA-CN-37, International Atomic Energy
 Agency, Vienna, Austria, May 1979; Nuclear Fusion supplement 1979,
 pp. 135-142.
- Decker, G., Oppenlander, T. and Rager, J. P., "Plasma Focus," pp. 666-669 in "Summary on Informal Meetings on Stellarators, Plasma Focus and Tandem Mirrors," in Proceedings of the Seventh International

- Conference on Plasma Physics and Controlled Nuclear Fusion Research,

 Innsbruck, Austria, 23-30 August 1978, Vol. II, IAEA-CN-37,

 International Atomic Energy Agency, Vienna, Austria, May 1979;

 Nuclear Fusion supplement 1979, pp. 663-670.
- Decker, G., Flemming, L., Kaeppeler, H. J., Oppenlander, T., Pross, G., Schilling, P., Schmidt, H., Shakhatre, M. and Trunk, M., "Current and Neutron Yield Scaling of Fast High Voltage Plasma Focus," Plasma Physics, Vol. 22, No. 3, March 1980, pp. 245-260.
- Decker, G., Kies, W., Maysenholder, W. and Pross, G., "Fast 200 kV

 Capacitor Bank as a Current Source for a Dense Plasma Focus," in

 Digest of Technical Papers, Third IEEE Pulsed Power Conference,

 Albuquerque, New Mexico, 1-3 June 1981, pp. 392-398, Martin, T. H.

 and Guenther, A. H. (eds.), Institute of Electrical and Electronics

 Engineers, New York City, New York, 1981.
- Decker, G., Kies, W. and Pross, G., "Experiments Solving the Polarity Riddle of the Plasma Focus," <u>Physics Letters</u>, Vol. 89A, No. 8, 7 June 1982, pp. 393-396.
- Decker, G., Kies, W. and Pross, G., "The First and the Final Fifty

 Nanoseconds of a Fast Focus Discharge," The Physics of Fluids, Vol.

 26, No. 2, February 1983, pp. 571-578.
- Decker, G., Jager, U., Kies, W., Pross, G. and Rybach, J., "SPEED 1: A High Impedance, High Voltage Driven Fast Plasma Focus of Improved

Performance," in <u>Europhysics Conference Abstracts of the Eleventh</u>

European Conference on Controlled Fusion and Plasma Physics, Aachen,

Federal Republic of Germany, 5-9 September 1983, Vol. 7D, Part I,

pp. 501-504, Methfessel, S. (series ed.), Thomas, G. (managing ed.),

European Physical Society, Geneva, Switzerland, 1983.

- Decker, G., Kies, W., Pross, G. and Rybach, J., "Schlieren Diagnostics at SPEED 1," in <u>Proceedings of the Third International Workshop on Plasma Focus Research</u>, Stuttgart, Federal Republic of Germany, 12-13

 <u>September 1983</u>, Report No. IPF-83-6, pp. 75-78, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Decker, G., Kies, W., Rybach, J. and Pross, G., "Breakdown Phenomena in SPEED 1," in Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13

 September 1983, Report No. IPF-83-6, pp. 79-82, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Decker, G., Kies, W. and Pross, G., "High Voltage Focus Programme at Dusseldorf University," in Energy Storage, Compression, and Switching, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice,

- Italy, 5-8 December 1978, pp. 413-416, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- Decker, G., Deutsch, R., Kies, W. and Rybach, J., "Plasma Layers of Fast Focus Discharges--Schlierenpictures Experimentally Taken and Computer Simulated," <u>Plasma Physics and Controlled Fusion</u>, Vol. 27, No. 5, May 1985, pp. 609-619.
- Decker, G., Kies, W., Malzig, M. and Ziethen, G., "SPEED 2: Power Input and Sheath Formation," in Proceedings of the Fourth International
 Workshop on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11
 September 1985, pp. 67-70, Denus, S. and Czekaj, S. (eds.),
 Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Degnan, J. H., Baker, W. L., Warren, S. W. R., Price, D. W., Snell, M. P., Richter-Sand, R. J. and Turchi, P. J., "Puff-Gas Coaxial-Injected Electromagnetic Coaxial Plasma Gun," <u>Journal of Applied</u>
 Physics, Vol. 61, No. 8, Part 1, 15 April 1987, pp. 2763-2770.
- Demetriades, S. T. and Argyropoulos, G. S., "Ohm's Law in Multicomponent Nonisothermal Plasmas with Temperature and Pressure Gradients," The Physics of Fluids, Vol. 9, No. 11, November 1966, pp. 2136-2149.
- Demichev, V. F. and Matyukhin, V. D., "A Study of the Properties of Rapidly Moving Plasma Blobs," <u>Soviet Physics--Doklady</u>, Vol. 8, No. 5, November 1963, pp. 457-460. (English translation of Russian

- original in Doklady Akademii Nauk SSSR, Vol. 150, No. 2, May 1963, pp. 279-282.)
- Demichev, V. F., Matyukhin, V. D., Nikologorskii, A. V. and Strunnikov, V. M., "Plasma Jet Deflection in Magnetic Fields," <u>Soviet Atomic Energy</u>, Vol. 19, No. 4, October 1965, pp. 1253-1259. (English translation of Russian original in <u>Atomnaya Energiya</u>, Vol. 19, No. 4, October 1965, pp. 329-335.)
- Demidenko, I. I. and Lomino, N. S., "Application of Plasma Accelerators in Thermonuclear Research," Report No. FTD-HC-23-1097-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 20 November 1974.

 (English translation of Russian original in <u>Plazmennyye Uskoriteli</u>, Izd vo Mashinostroyeniye, pp. 282-301, Moscow, USSR, 1973.)
- Denus, S., Kaliski, S., Kasperczuk, A., Kowalski, S., Paduch, M.,
 Pokora, L., Wereszczyński, Z. and Sadowski, M., "Plasma-Focus

 Dynamics Investigations by Means of Multiframe Interferometry and
 Shadowgraphy" in Proceedings of the Eighth European Conference on

 Controlled Fusion and Plasma Physics, Prague, Czechoslovakia, 19-23

 September 1977, Vol. I, p. 67, Institute of Plasma Physics,
 Czechoslovak Academy of Sciences, Prague, Czechoslovakia, 1977.
- Denus, S., Kasperczuk, A., Paduch, M. and Pokora, L., "Experimental Investigation of the MHD Instability Growth Theory in Plasma Focus System," in <u>Proceedings of the International Conference on Plasma</u>

 Physics, Nagoya, Japan, 7-11 April 1980 (Joint Conference of Fourth

Kiev International Conference on Plasma Theory and Fourth

International Conference on Waves and Instabilities in Plasma), Vol.

I, p. 173, Fusion Research Association of Japan, Nagoya, Japan,
1980.

- Denus, S., Pokora, L., Pisarczyk, T., Sledzinski, S., Shydlovski, A. and Vol'ski, Ya., "Neutron Production in a Flat CD₂ Target in an Aperture in the Central Electrode in a Plasma-Focus Device," <u>Soviet Journal of Plasma Physics</u>, Vol. 9, No. 4, July/August 1983, pp. 437-441. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 9, No. 4, July/August 1983, pp. 755-763.)
- Denus, S. and the Plasma-Focus Team, "Review of Plasma Focus Research at the IPPLM," in <u>Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp. 11-16, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Destler, W. W., Reiser, M. P., Rhee, M.-J. and Striffler, C. D.,

 "Investigation of Ion Beam Production and Acceleration Using Linear
 Electron Beams and a Pulse Powered Plasma Focus," Report No. AFOSRTR-84-0641, Air Force Office of Scientific Research, Bolling AFB,
 Washington, D. C., March 1984.

- Deutsch, R. and Kaeppeler, H. J., "Microinstabilities in a Radially Contracting Inhomogeneous Cylindrical Plasma Slab. II. Lower-Hybrid and Electron-Cyclotron Drift Instabilities in the Plasma Focus,"

 Report No. IPF-80-13, Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, December 1980.
- Deutsch, R. and Jager, U., "Ion Motion in the Plasma Focus," Report No. IPF-81-11, Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, December 1981.
- Deutsch, R., Herold, H., Kaeppeler, H. J. and Schmidt, H., "The

 Influence of the Deviation from Equilibrium Deuteron Distribution of
 the Neutron Spectra in Linear Pinch Geometries," Report No. IPF-8210, Institut für Plasmaforschung der Universität Stuttgart,
 Stuttgart, Federal Republic of Germany, July 1982.
- Deutsch, R., "Ion Acceleration in the Plasma Focus," Report No. IPF-82-6, Institut für Plasmaforschung der Universität Stuttgart,
 Stuttgart, Federal Republic of Germany, September 1982.
- Deutsch, R., Grauf, W., Herold, H. and Schmidt, H., "Self-Organization in the Plasma Focus," <u>Plasma Physics</u>, Vol. 25, No. 8, August 1983, pp. 833-840.
- Deutsch, R. and Kies, W., "Focus Discharge Parameter Evaluation in

 Matching Measured and Computed Simulated Electric Signals," in

 Proceedings of the Fourth International Workshop on Plasma Focus and

- Z-Pinch Research, Warsaw, Poland, 9-11 September 1985, pp. 205-208, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Deutsch, R., Kies, W. and Decker, G., "Theoretical Model and Computer Simulations of Electric Signals for Magnetically Driven Plasma Sheaths," Plasma Physics and Controlled Fusion, Vol. 28, No. 12A, December 1986, pp. 1823-1839.
- Deutsch, R. and Kies, W., "Ion Acceleration and Runaway in Dynamical Pinches," <u>Plasma Physics and Controlled Fusion</u>, Vol. 30, No. 3, March 1988, pp. 263-276.
- Deutsch, R., "Response to Comments on Published Paper 'Theoretical Model and Computer Simulations of Electrical Signals for Magnetically Driven Plasma Sheets from H. A. Bruzzone and H. J. Kelly'," Plasma

 Physics and Controlled Fusion, Vol. 30, No. 7, July 1988, pp. 917-918.
- Deutsch, R. and Kies, W., "Manifestation of an Ion Acceleration

 Mechanism in Computer Simulations and Plasma-Focus Experiments,"

 Plasma Physics and Controlled Fusion, Vol. 30, No. 8, August 1988, pp. 921-934.
- Dietz, D., "Analytical Solution of the Equations for a Coaxial Plasma

 Gun Operating in the Snowplow Mode. I. Weak Coupling Limit," Report

- No. AFWL-TR-86-137, Air Force Weapons Laboratory, Kirtland AFB, New Mexico, June 1987.
- Dietz, D., "Coaxial Plasma Accelerator in the Snowplow Mode: Analytical Solution in the Weak Coupling Limit," <u>Journal of Applied Physics</u>, Vol. 62, No. 7, 1 October 1987, pp. 2669-2674.
- Dmitriiyenko, B. I. and Leskov, L. V., "Study of Ablation of Dielectric by Sliding Discharge in Pulsed Accelerators," Report No. FTD-HT-23-1085-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 22 October 1974. (English translation of Russian original in Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye, pp. 230-233, Moscow, USSR, 1973.)
- Donges, A., Herziger, G., Krompholz, H., Ruhl, F. and Schönbach, K.,

 "The Breakdown Phase in a Coaxial Plasma Gun," Physics Letters, Vol.

 76A, No. 5/6, 14 April 1980, pp. 391-392.
- Donskoi, A. V., Klubnikin, V. S. and Kenkhi, R. I., "The Energy Characteristics of Plasma Guns," <u>Welding Production</u>, Vol. 25, No. 2, February 1978, pp. 8-10. (English translation of Russian original in Svarochnoe Proizvodstvo, No. 2, February 1978, pp. 7-9.)
- Dontsov, Yu. P., Korostylyova, L. A. and Morozov, A. I., "The Use of Coaxial Plasma Sources for Identification of Atomic Spectra," Optics and Spectroscopy, Vol. 26, No. 6, June 1969, pp. 487-489. (Englist

- translation of Russian original in <u>Optika i Spectroskopiya</u>, Vol. 26, No. 6, June 1969, pp. 890-895.)
- Downing, J. N., Jr. "The Dynamics of the DPF as Determined from an Analysis of Laser Scattering Spectra," PhD dissertation, University of Houston, Houston, Texax, May 1973.
- Downing, J. N. and Eisner, M., "Dynamics of the Dense Plasma Focus as

 Determined from an Analysis of Laser Scattering Spectra," The

 Physics of Fluids, Vol. 18, No. 8, August 1975, pp. 991-1001.
- Dubrovsky, A. V., Gribkov, V. A., Isakov, A. I., Kalachev, N. V., Kozlova, T. A., Krokhin, O. N., Nikulin, V. Ya. and Volovuev, I. V., "Comparable Characteristics of the Soft X-Ray Emission from the Plasma Focus Facilities," in <u>Proceedings of the 18th International Conference on Phenomena in Ionized Gases</u>, Swansea, England, 13-17

 July 1987, Contributed Papers, pp. 632-633, Williams, W. T. (ed.)
- Dyachenko, V. P. and Imshennik, V. S., "Plasma Focus and the Neutron Emission Mechanism in a Z-Pinch," <u>Soviet Physics--JETP</u>, Vol. 29, No. 5, November 1969, pp. 947-953. (English translation of Russian original in <u>Zhurnal Éksperimental'noi i Teoreticheskoi Fiziki</u>, Vol. 56, No. 5, May 1969, pp. 1766-1777.)
- Eddleman, J. L., McNamara, B., Nash, J. K., Shearer, J. W. and Turner,

- W. C., "A Computational Compact Torus Experiment," Report No. UCID-18827, Lawrence Livermore National Laboratory, Livermore, California, 24 December 1980.
- Ehrhardt, J., Kirchesch, P., Batzner, R., Behler, K., Bockle, G., Bruhns, H., Hübner, K., Steinmetz, K. and Wenzel, N., "Light Scattering in a Plasma Focus, Measurement of k- and ω-Spectra," in Europhysics Conference Abstracts of the Tenth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981, Vol. 5G, Part I, pp. 269-272, Merz, W. J. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1981.
- Ehrhardt, J., Kirchesch, P., Hubner, K. and Rager, J. P., "Light-Scattering in the Frascati Plasma Focus," Physics Letters, Vol. 89A, No. 6, 24 May 1982, pp. 285-286.
- Eissa, M. A., Zakaullah, M. and Lee, S., "Circuit Effects on the Operation of a Plasma Focus," in <u>Second Tropical College on Applied Physics: Laser and Plasma Technology</u>, University of Malaya, Malaysia, 17 March--5 April 1986, pp. 422-429, Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Eissa, M. A., Saudy, A. H. and Sharkawy, W., "Snow-Plow Operation in Plasma Focus," in Energy Independence Conference on Fusion Energy

- and Plasma Physics, Energy Independence Conference on Fusion Energy and Plasma Physics, Rio de Janeiro, Brazil, 17-21 August 1987, pp. 332-340, Sakanaka, P. H. (ed.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- El-Khalafawy, T. A., Masoud, M. M. and Soliman, H. M., "Heating and Acceleration Mechanism in Plasma Focus," in Energy Independence
 Conference on Fusion Energy and Plasma Physics, Energy Independence
 Conference on Fusion Energy and Plasma Physics, Rio de Janeiro,
 Brazil, 17-21 August 1987, pp. 554-563, Sakanaka, P. H. (ed.), World
 Scientific Publishing Company, Inc., Teaneck New Jersey, 1988.
- Eltgroth, P. G., "Comparison of Plasma Focus Calculations," <u>The Physics</u> of Fluids, Vol. 25, No. 12, December 1982, pp. 2408-2414.
- Enloe, C. L. and Reinovsky, R. E., "A Simple Model of the Plasma

 Deflagration Gun Including Self-Consistent Electric and Magnetic

 Fields," in <u>Digest of Technical Papers</u>, <u>Proceedings of the Fifth</u>

 <u>IEEE Pulsed Power Conference</u>, <u>Arlington</u>, <u>Virginia</u>, <u>10-12 June 1985</u>,

 pp. 724-727, Turchi, P. J. and Rose, M. F. (eds.), Institute of

 Electrical and Electronics Engineers, New York City, New York, 1985.
- Eubank, H. P., "Impurity Content of Plasma Produced by a Coaxial Plasma Gun," The Physics of Fluids, Vol. 6, No. 10, Ontober 1963, pp. 1522-1524.

- Evrard, P., Jacquinot, J., Leloup, C., Poffe, J. P. and Waelbroeck, F.,

 "Efficiencies for Plasma Jet Collisions in a Homogenous Magnetic

 Field," in Nuclear Fusion (Translated Selected Articles), Report No.

 AEC-TR-6674, pp. 1-23, U. S. Atomic Energy Commission, Oak Ridge,

 Tennessee, 1966. (English translation of French original in Nuclear

 Fusion, Vol. 6, No. 2, pp. 83-92, International Atomic Energy

 Agency, Vienna, Austria, 1966.)
- Fanning, J. J. and Kim, K., "Mather-Type Dense Plasma Focus as a New Optical Pump for Short-Wavelength High-Power Lasers," <u>Journal of Applied Physics</u>, Vol. 55, No. 7, 1 April 1984, pp. 2795-2796.
- Farber, E. and Bostick, W. H., "Plasma Vortices in the Coaxial Accelerator," Vol. 1, No. 1, Report No. AFOSR 68-1668, Air Force Office of Scientific Research, Arlington, Virginia, February 1968.
- Farynski, A. and Gacek, A., "A Diode Model of High-Energy Charged

 Particle Emission in the Plasma-Focus Device," in <u>Europhysics</u>

 <u>Conference Abstracts of the Eleventh European Conference on</u>

 <u>Controlled Fusion and Plasma Physics, Aachen, Federal Republic of</u>

 <u>Germany, 5-9 September 1983</u>, Vol. 7D, Part I, pp. 497-500,

 Methfessel, S. (series ed.), Thomas, G. (managing ed.), European

 Physical Society, Geneva, Switzerland, 1983.
- Farynski, A. and Gacek, A., "A Diode Model of High-Energy Particle

 Emission in the Plasma-Focus Device," in <u>Proceedings of the Third</u>

 International Workshop on Plasma Focus Research, Stuttgart, Federal

- Republic of Germany, 12-13 September 1983, Report No. IPF-83-6, pp. 55-58, Herold, H. and Kaeppeler, II. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Fernandez, J. C., Barnes, C. W., Jarboe, T. R., Knox, S. O., Platts, D. A. and McKenna, K. F., "Energy Efficiency of the CTX Magnetized Coaxial Plasma Source," Report No. LA-UR-85-1818, Los Alamos National Laboratory, Los Alamos, New Mexico, May 1985.
- Feugeas, J. N., Llonch, E. C., de Gonzalez, C. O. and Galambos, G.,

 "Nitrogen Implantation of AISI 304 Stainless Steel with a Coaxial

 Plasma Gun," <u>Journal of Applied Physics</u>, Vol. 64, No. 5, 1 September 1988, pp. 2648-2651.
- Filippov, N. V., Filippova, T. I. and Vinogradov, V. P., "Dense, High Temperature Plasma in a Non-Cylindrical Z-Pinch Compression," Nuclear Fusion, supplement 1962, Pt. 2, pp. 577-587 (in Russian).
- Filippov, N. V., Ivanov, V. D., Moiseeva, M. P., Stepanenko, M. M. and Sukhareva, M. K., "Analysis of the Geometry, Physics and Magnetic Structure of a Plasma Pinch by the Laser Interferometry Method," in Proceedings of the Fifth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Tokyo, Japan, 11-15 November 1974, IAEA-CN-33, pp. 163-167, International Atomic Energy Agency, Vienna, Austria, 1975 (English translation of Russian original in Nuclear Fusion supplement 1975.)

- Filippov, N. V., Bazdenkov, S. V., Belyaeva, I. F., Bezbatchenko, V. A., Gureev, K. G., Filippova, T. I., Imshennik, V. S., Kazhdan, Ya. M. and Pliner, L. A., "Processes Near the Plasma-Metal Boundary Under Disruptive Condition in 'Plasma Focus' Systems," in 1974, IAEA-CN-33, pp. 169-174, International Atomic Energy Agency, Vienna, Austria, 1975 (English translation of Russian original in Nuclear Fusion supplement 1975.)
- Filippov, N. V. and Filippova, T. I., "Investigation of Deuteron Beams Generated in a Plasma Focus," <u>JETP Letters</u>, Vol. 25, No. 5, 5 March 1977, pp. 241-244. (English translation of Russian original in <u>Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki, Pis'ma v</u>

 <u>Redaktsiiu</u>, Vol. 25, No. 5, 5 March 1977, pp. 262-265.)
- Filippov, N. V., Bezbatchenko, V. A., Belyaeva, I. P. and Filippova, T. I., "Investigation of Energetic Ion Beams in the Plasma Focus Discharge," in <u>Proceedings of the Eighth European Conference on Controlled Fusion and Plasma Physics</u>, Prague, Czechoslovakia, 19-23

 <u>September 1977</u>, Vol. I, p. 63, Institute of Plasma Physics,

 Czechoslovak Academy of Sciences, Prague, Czechoslovakia, 1977.
- Filippov, N. V., "Acceleration of Aluminum Ions in a Plasma Focus,"

 <u>Soviet Physics--JETP</u>, Vol. 49, No. 5, May 1979, pp. 785-787.

 (English translation of Russian original in Zhurnal

- <u>Éksperimental'noi i Teoreticheskoi Fiziki</u>, Vol. 76, No. 5, May 1979, pp. 1547-1550.)
- Filippov, N. V. and Filippova, T. I., "Subterrawatt Ion Beams in a Plasma Focus," <u>JETP Letters</u>, Vol. 29, No. 12, 20 June 1979, pp. 689-693. (English translation of Russian original in <u>Zhurnal</u> <u>Éksperimental'nol i Teoreticheskol Fiziki, Pis'ma v Redaktsiiu</u>, Vol. 29, No. 12, 20 June 1979, pp. 750-755.)
- Filippov, N. V., "Plasma-Focus Experiments at the Kurchatov Institute,

 Moscow (Review)," <u>Soviet Journal of Plasma Physics</u>, Vol. 9, No. 1,

 January/February 1983, pp. 14-25. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 9, No. 1, January/February 1983, pp. 25-44.)
- Filippov, N. V. and Filippova, T. I., "Properties of the Intense Ion Beams Produced in a Plasma Focus," <u>Soviet Journal of Plasma Physics</u>, Vol. 9, No. 4, July/August 1983, pp. 424-427. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 9, No. 4, July/August 1983, pp. 733-739.)
- Finkelstein, D., Sawyer, G. A. and Stratton, T. F., "Supersonic Motion of Vacuum Spark Plasmas along Magnetic Fields," <u>The Physics of</u> Fluids, Vol. 1, No. 3, May/June 1958, pp. 188-192.

- Fischer, H. and Haering, K. H., "Plasma Development in the Accelerator of a 2-kJ Focus Discharge," <u>Applied Optics</u>, Vol. 18, No. 13, 1 July 1979, pp. 2258-2261.
- Fischer, H. and Haering, K. H., "Plasma Development in the Accelerator of a 2-kJ Focus Discharge: Addendum," Applied Optics, Vol. 18, No. 22, 15 November 1979, pp. 3733-3734.
- Fischer, H., Haering, K. H. and Klemm, R., "Some Observations of Ion Acceleration from Image-Structures of a 2 kJ Plasma Focus," in Energy Storage, Compression, and Switching, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 617-628, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- Fishbine, B. H., Mather, J. W. and Woodall, D. M., "Operational Characteristics of a High Voltage Dense Plasma Focus," Report No.

 NE-105(84)AFWL-163-1, Bureau of Engineering Research, University of New Mexico, Albuquerque, New Mexico, August 1984.
- Fishbine, B. H., "A High Voltage Dense Plasma Focus," PhD dissertation,
 University of New Mexico, Albuquerque, New Mexico, December 1984.
- Fontan, C. F. and Schifino, A. S., "Generation of Kilogauss Radial Magnetic Fields in the Plasma Focus Current Sheath," in Energy
 Storage, Compression, and Switching, Vol. 2, Proceedings of the

Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 607-616, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.

- Forrest, M. J., Norton, B. A. and Peacock, N. J., "The Measurement of Ion Temperature and Magnetic Field in a Dense Plasma Focus," in Proceedings of the Sixth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 30 July--4 August 1973, Vol. I, pp. 363-366, European Physical Society, Vienna, Austria, 1973.
- Forrest, M. J. and Peacock, N. J., "Measurement of the Ion Temperature in the Dense Plasma Focus by Laser Beam Scattering," Plasma Physics, Vol. 16, No. 6, June 1974, pp. 489-498.
- Forrest, M. J., Kirk, R. E., Muir, D. G. and Peacock, N. J., "The Significance of New Measurements of Density Fluctuations and the Current Distribution in the Culham Plasma Focus," in <u>Europhysics Conference Abstracts of the Eleventh European Conference on Controlled Fusion and Plasma Physics</u>, Aachen, Federal Republic of <u>Germany</u>, 5-9 September 1983, Vol. 7D, Part I, pp. 571-574, Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.
- Fowler, T. K. and Coensgen, F. H., "Progress in Mirror Machine

 Research," in <u>Proceedings of the Ninth European Conference on</u>

 Controlled Fusion and Plasma Physics, Oxford, England, 17-21

- September 1979, pp. 299-308, Culham Laboratory, Oxford, England, 1979.
- Freeman, B., Luce, J. and Sahlin, H., "Plasma Focus--Solid Target

 Interactions," in <u>Proceedings of the Fifth European Conference on</u>

 Controlled Fusion and Plasma Physics, Grenoble, France, 21-25 August

 1972, Vol. 1, p. 68, Association EURATOM--Commissariat à l'Énergie

 Atomique, Centre d'Etudes Nucléaires de Grenoble, Grenoble, France,

 1972.
- Freeman, B. L., Caird, R. S., Erickson, D. J., Fowler, C. M., Garn, W. B., Kruse, H. W., King, J. C., Bartram, D. E. and Kruse, P. J., "Plasma Focus Experiments Powered by Explosive Generators," in Ultrahigh Magnetic Fields: Physics, Techniques, Applications, Proceedings of the Third International Conference on Megagauss Magnetic Field Generation and Related Topics, Novosibirsk, USSR, 13-17 June 1983, pp. 136-144, Titov, V. M. and Shvetsov, G. A. (eds.), Nauka, Moscow, USSR, 1984.
- Freiwald, D. A., Prestwich, K. R., Kuswa, G. W. and Beckner, E. H.,

 "Neutron Enhancement from Relativistic Electron Beam-Dense Plasma

 Focus Interactions," Physics Letters, Vol. 36A, No. 4, 13 September
 1971, pp. 297-298.
- Friedel, H. and Lackner, K., "Performance Studies of Plasma

 Accelerators," in <u>Problems of Propulsion and Re-Entry</u>, Proceedings
 of the Seventeenth International Astronautical Congress, Madrid,

- Spain, 9-15 October 1966, Vol. 3, pp. 261-271, Eunc, M., Contensou, P., Duboshin, G. N. and Hilton, W. F. (eds.), Dunod Editeur, Paris, France, Gordon and Breach, Inc., New York City, New York, Panstwowe Wydaynictwo Naukowe, Warsaw, Poland, October 1967.
- Friedel, H. and Lackner, K., "Performance Studies of Plasma

 Accelerators," Report No. AFOSR 68-2830, Air Force Office of
 Scientific Research, Arlington, Virginia, 13 November 1968.
- Friedman, H. W. and Patrick, R. M., "Momentum Transfer in Plasma Flows at High Alfven Mach Numbers," <u>The Physics of Fluids</u>, Vol. 14, No. 9, September 1971, pp. 1889-1904.
- Furth, H. P., "The Compact Torus," <u>Journal of Vacuum Science and</u>
 Technology, Vol. 18, No. 3, April 1981, pp. 1073-1080.
- Garlea, C., Garlea, I., Dumitrescu-Zoiţa and Zoiţa, V., "Determination of Neutron Flux-Spectrum for Plasma Focus Devices by Means of Solid State Track Recorders," in <u>Proceedings of the Fourth International Workshop on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September 1985</u>, pp. 19-22, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Gary, S. P. and Hohl, F., "Ion Kinematics in a Plasma Focus," The

 Physics of Fluids, Vol. 16, No. 7, July 1973, pp. 997-1002.

- Gary, S. P., "Ion Acceleration in a Plasma Focus," <u>The Physics of</u> Fluids, Vol. 17, No. 11, November 1974, pp. 2135-2137.
- Gastev, A. S., Grishin, Yu. M., Kozlov, N. P. and Khvesyuk, V. I.,

 "Effect of Viscous Friction on Plasma Flow in an Electromagnetic

 Plasma Gun," Soviet Physics—Technical Physics, Vol. 20, No. 9,

 September 1975, pp. 1256—1258. (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 45, No. 9, September 1975, pp. 1995—1997.)
- Gates, D. C., "X-Ray Production in Dense Plasma Focus," Report No. AFOSR TR-80-0412, Air Force Office of Scientific Research, Bolling AFB, Washington, D. C., March 1980.
- Gates, D. C., "Studies of a 60 kV Plasma Focus," in Energy Storage,

 Compression, and Switching, Vol. 2, Proceedings of the Second
 International Conference on Energy Storage, Compression, and
 Switching, Venice, Italy, 5-8 December 1978, pp. 329-351, Nardi, V.,
 Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City,
 New York, 1983.
- Gentilini, A., Maisonnier, Ch. and Rager, J. P., "On Neutron-Production Mechanisms in a Dense Plasma Focus," <u>Comments on Plasma Physics</u>, Vol. 5, No. 2, 1979, pr. 41-53.
- Gentilini, A., Rager, J. P., Steinmerz, K., Tacchi, M., Antonini, D., Arcipiani, D., Arcipiani, B., Moioli, P., Pedretti, E. and Scafe, R.

"Comparison of Four Calibration Techniques of a Silver Activated Geiger Counter for the Determination of the Neutron Yield on the Frascati Plasma Focus Experiment," <u>Nuclear Instruments and Methods</u>, Vol. 172, No. 3, 1 June 1980, pp. 541-552.

- Gerdin, G., Stygar, W. and Venneri, F., "Faraday Cup Analysis of Ion

 Beams Produced by a Dense Plasma Focus," <u>Journal of Applied Physics</u>,

 Vol. 52, No. 5, May 1981, pp. 3269-3275.
- Gerdin, G., "Restrike Particle Beam Experiments on a Dense Plasma

 Focus," Report No. AFOSR-TR-82-0342, Air Force Office of Scientific

 Research, Bolling AFB, Washington, D. C., 30 November 1981.
- Gerdin, G., "Restrike Particle Beam Experiments on a Dense Plasma

 Focus," Report No. AFOSR-TR-85-0279, Air Force Office of Scientific

 Research, Bolling AFB, Washington, D. C., June 1985.
- Gerdin, G., Tanis, M. J. and Venneri, F., "Observation of Microwave Emission from a Plasma Focus at Frequencies Well below the Mean Plasma Frequency," <u>Plasma Physics and Controlled Fusion</u>, Vol. 28, No. 3, March 1986, pp. 527-545.
- Gerdin, G., "Opening Switch Research on a Dense Plasma Focus," Report

 No. AFOSR-TR-87-0414, Air Force Office of Scientific Research,

 Bolling AFB, Washington, D. C., 23 February 1987.

- Gerdin, G., Venneri, F. and Boulais, K., "A Scaling Law for Macroscopic Stability of the Mather-Type Plasma Focus," Plasma Physics and Controlled Fusion, Vol. 31, No. 9, September 1989, pp. 1341-1363.
- Gerdin, G. A., "Opening Switch Research on a Plasma Focus VI," Report
 No. AFOSR-TR-88-0930, Air Force Office of Scientific Research,
 Bolling AFB, Washington, D. C., 26 February 1988.
- Gheorghe, V., Mihailov, M. I., Novikov, V. G., Sarantsev, V. P. and Shestakov, B. A., "On the Plasma Source of Neutral Particles at the Heavy Ion Collective Dubna JINR Accelerator," Revue Roumaine de Physique, Vol. 22, No. 3, March 1977, pp. 321-331.
- Gholap, A. V., Zakaullah, M. and Eissa, M. A., "Magnetic Field

 Measurements in Coaxial Electromagnetic Shock Tube," in <u>Second</u>

 <u>Tropical College on Applied Physics: Laser and Plasma Technology</u>,

 University of Malaya, Malaysia, 17 March--5 April 1986, pp. 457-466,

 Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H.

 and Chen, Y. H. (eds.), World Scientific Publishing Company, Inc.,

 Teaneck, New Jersey, 1988.
- Gloersen, P., Gorowitz, B. and Kenney, J. T., "Energy Efficiency Trends in a Coaxial Gun Plasma Engine System," <u>AIAA Journal</u>, Vol. 4, No. 3, March 1966, pp. 436-441.

- Gloersen, P., "Density Profile Measurements," Report No. AFOSR-67-2364,
 Air Force Office of Scientific Research, Arlington, Virginia,
 September 1967.
- Gloersen, P., "Observation of Fast Neutrals Projected from a Coaxial Gun," <u>The Physics of Fluids</u>, Vol. 12, No. 4, April 1969, pp. 945-947.
- Glotova, N. N., Kazanskii, V. I., Kirdyashev, K. P., Ostretsov, I. N., Porotnikov, A. A. and Utkin, Yu. A., "Anomalous Operation of an Electrodynamic Plasma Accelerator," Soviet Physics--Technical Physics, Vol. 23, No. 7, July 1978, pp. 779-783. (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 48, No. 7, July 1978, pp. 1381-1388.)
- Godunov, S. K., Filippov, N. V. and Filippova, T. I., "Mechanical Effects on Electrode During Plasma Cumulation near the Axis," <u>Soviet Physics--JETP</u>, Vol. 25, No. 5, November 1967, pp. 755-760. (English translation of Russian original in <u>Zhurnal Eksperimental'noi i</u>

 Teoreticheskoi Fiziki, Vol. 52, No. 5, May 1967, pp. 1138-1145.)
- Goldenbaum, G. C., Granneman, E. H. A., Hartman, C. W., Prono, D. S., Taska, J. and Turner, W. C., "Experimental Observation and Model Calculations of Impurity Radiation in a Plasma Gun Compact Torus Experiment," Report No. UCID-19478, Lawrence Livermore National Laboratory, Livermore, California, 10 August 1982.

- Gooding, T. J., Hayworth, B. R. and Lovberg, R. H., "Instabilities in a Coaxial Plasma Gun," <u>AIAA Journal</u>, Vol. 1, No. 6, June 1963, pp. 1289-1292.
- Gooding, T. J., Larson, A. V., Hayworth, B. R. and Ashby, D. E. T. F., "Development of a Coaxial Plasma Gun for Space Propulsion," Report No. NASA CR-54245, National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio, April 1965.
- Goryacheva, N. V., Zhitlukhin, A. M., Lototsky, A. P., Lyashenko, V. M., Ravichev, S. A., Skvortsov, Yu. V., Strunnikov, V. M. and Tserevitinov, S. S., "Interactions of High Energy Plasma Clusters with a Longitudinal Magnetic Field," in <u>Pulsed High Beta Plasmas</u>, Proceedings of the Third Topical Conference on Pulsed High Beta Plasmas, UKAEA Culham Laboratory, Abingdon, Oxfordshire UK, 9-12 September 1975, pp. 467-469, Evans, D. E. (ed.), Pergamon Press, Oxford, England, 1976.
- Gourlan, C., Maisonnier, Ch., Robouch, B., Samuelli, M., Benuzzi, A. and Fasoli, P., "Project of a Megajoule Plasma Focus Experiment," in Proceedings of the Second Topical Conference on Pulsed High-Beta
 Plasmas, Garching, near Munich, Germany, 3-6 July 1972, Report No.

 IPP 1/127, pp. 175-178, Lotz, W. (ed.), Max Planck Institut fur Plasmaphysik, Garching, near Munich, Germany, July 1972.
- Gourlan, C., Kroegler, H., Maisonnier, Ch., Oppenlander, T. and Rager,
 J. P., "Measurement of Current Density Distribution in a Megajoule

Plasma Focus Device," in <u>Proceedings of the Eighth European</u>

<u>Conference on Controlled Fusion and Plasma Physics, Prague,</u>

<u>Czechoslovakia, 19-23 September 1977</u>, Vol. II, p. 247, Institute of Plasma Physics, Czechoslovak Academy of Sciences, Prague,

Czechoslovakia, 1977.

- Gourlan, C., Kroegler, H., Maisonnier, C., Rager, J. P., Robouch, B. V. and Gentilini, A., "Recent Progress in 1-MJ Plasma Focus Dynamics and Scaling for Neutron Production," in <u>Proceedings of the Seventh International Conference on Plasma Physics and Controlled Fusion Research, Innsbruck, Austria, 23-30 August 1978</u>, Vol. II, IAEA-CN-37, International Atomic Energy Agency, Vienna, Austria, May 1979; Nuclear Fusion supplement 1979, pp. 123-134.
- Gourlan, C., Kroegler, H., Maisonnier, C., Rager, J. P., Robouch, B. V., Bertalot, L., Gentilini, A., Arcipiani, B., Pedretti, E. and Steinmetz, K., "Present Status of the Frascati 1 MJ Plasma Focus Programme," in Energy Storage, Compression, and Switching, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 221-245, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- Granneman, E. H. A., Goldenbaum, G. C., Hammer, J. H., Hartman, C. W., Prono, D. S., Taska, J. and Turner, W. C., "A Study of the Equilibrium and Decay of Compact Toroids Generated by a Magnetized Co-Axial Plasma Gun," in Europhysics Conference Abstracts of the

Tenth European Conference on Controlled Fusion and Plasma Physics,

Moscow, USSR, 14-19 September 1981, Vol. 5G, Part II, pp. 355-358,

Merz, W. J. (series ed.), Thomas, G. (managing ed.), European

Physical Society, Geneva, Switzerland, 1981.

- Gratreau, P., Luzzi, G., Maisonnier, Ch., Pecorella, F., Rager, J. P., Robouch, B. V. and Samuelli, M., "Structure of the Dense Plasma Focus, Part I: Numerical Calculations, X-Ray and Optical Measurements," in <u>Proceedings of the Fourth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Madison, Wisconsin, 17-23 June 1971</u>, Vol. I, IAEA-CN-28, International Atomic Energy Agency, Vienna, Austria, October 1971; <u>Nuclear Fusion</u> supplement 1971, pp. 511-521.
- Gratton, F., "Theory of the Vortex Breakdown in the Plasma Focus," in Proceedings of the Second Topical Conference on Pulsed High-Beta Plasmas, Garching, near Munich, Germany, 3-6 July 1972 Report No. IPP 1/127, pp. 159-162, Lotz, W. (ed.), Max Planck Institut für Plasmaphysik, Garching, near Munich, Germany, July 1972.
- Gratton, F. and Vargas, M., "Analytic Solutions for the Motion of the Axial Symmetric Current Sheath in a Plasma Focus," in <u>Proceedings of the Seventh European Conference on Controlled Fusion and Plasma Physics, Lausanne, Switzerland, 1-5 September 1975</u>, Vol. I, p. 64, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, 1975.

- Gratton, F. T. L., "On the Bursting of Filaments in the Plasma Focus," in Energy Storage, Compression, and Switching, Proceedings of the International Conference on Energy Storage, Compression, and Switching, Asti-Torino, Italy, 5-7 November 1974, pp. 189-196, Bostick, W. H., Nardi, V. and Zucker, O. S. F. (eds.), Plenum Press, New York City, New York, 1976.
- Gratton, F. and Vargas, M., "Analytic Solutions of Self-Inductance

 Changes in a Plasma Focus," in <u>Pulsed High Beta Plasmas</u>, Proceedings of the Third Topical Conference on Pulsed High Beta Plasmas, UKAEA

 Culham Laboratory, Abingdon, Oxfordshire UK, 9-12 September 1975, pp. 461-465, Evans, D. E. (ed.), Pergamon Press, Oxford, England, 1976.
- Gratton, F. and Vargas, M., "Magnetic Tension and Thickness in the

 Current Sheath Dynamics," in <u>Proceedings of the Sixth International</u>

 <u>Conference of Plasma Physics and Controlled Fusion Research,</u>

 <u>Berchtesgaden, Federal Republic of Germany, 6-13 October 1976, Vol.</u>

 III, IAEA-CN-35, International Atomic Energy Agency, Vienna,

 Austria, May 1977; Nuclear Fusion supplement 1977, pp. 489-490.
- Gratton, R., Kelly, H., Milanese, M. and Pouzo, J., "On the Upper
 Pressure for the Efficient Operation of a Plasma Focus Device,"

 Physics Letters, Vol. 62A, No. 6, 19 September 1977, pp. 422-424.
- Gratton, F. and Vargas, J. M., "Two Dimensional Electromechanical Model of the Plasma Focus," in Energy Storage, Compression, and Switching,

- Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 353-386, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- Gribkov, V. A., Korzhavin, V. M., Krokhin, O. N., Sklizkov, G. V., Filippov, N. V. and Filippova, T. I., "Observation of Second Compression in the Final Stage of a Discharge of the 'Plasma Focus' Type," <u>JETP Letters</u>, Vol. 15, No. 6, 20 March 1972, pp. 232-234.

 (English translation of Russian original in <u>Zhurnal</u>

 <u>Éksperimental'nol i Teoreticheskol Fiziki, Pis'ma v Redaktsiiu</u>, Vol. 15, No. 6, 20 March 1972, pp. 329-332.)
- Gribkov, V. A., Korzhavin, V. M., Krokhin, O. N., Nikulin, V. Ya.,

 Sklizkov, G. V., Filippov, N. V. and Filippova, T. I., "Experimental

 Study of Cumulative Plasma Phenomena," in <u>Proceedings of the Fifth</u>

 <u>European Conference on Controlled Fusion and Plasma Physics,</u>

 <u>Grenoble, France, 21-25 August 1972</u>, Vol. 1, p. 64, Association

 EURATOM--Commissariat à l'Énergie Atomique, Centre d'Etudes

 Nucleaires de Grenoble, Grenoble, France, 1972.
- Gribkov, V. A., Krokhin, O. N., Sklizkov, G. V., Filippov, N. V. and Filippova, T. I., "Beam Heating in a 'Plasma Focus'," <u>JETP Letters</u>, Vol. 18, No. 1, 5 July 1973, pp. 5-7. (English translation of Russian original in <u>Zhurnal Eksperimental'nol i Teoreticheskol Fiziki, Pis'ma v Redaktsiiu</u>, Vol. 18, No. 1, 5 July 1973, pp. 11-15.)

- Gribkov, V. A., Krokhin, O. N., Sklizkov, G. V., Filippov, N. V. and Filippova, T. I., "Diffusion and Beam Heating in the Dense Plasma Focus," in Proceedings of the Sixth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 30 July--4
 August 1973, Vol. I, pp. 375-378, European Physical Society, Vienna, Austria, 1973.
- Gribkov, V. A., "Application of the Kelativistic Electron Beams
 Originating in the Discharges of Plasma Focus Type for the Combined
 Laser-REB Plasma Heating," in Energy Storage, Compression, and
 Switching, Proceedings of the International Conference on Energy
 Storage, Compression, and Switching, Asti-Torino, Italy, 5-7
 November 1974, pp. 271-276, Bostick, W. H., Nardi, V., Zucker, O.
 S. F. (eds.), Plenum Press, New York City, New York, 1976.
- Gribkov, V. A., Dubrovskii, Isakov, A. I., Kozlova, T. A., Krokhin,
 O. N., Nikulin, V. Ya., Semenov, O. G. and Sklizkov, G. V.,
 "Effectiveness of Interaction between an Electron Beam having Large
 ν/γ and a Preheated Flat Target," <u>JETP Letters</u>, Vol. 26, No. 4,
 20 August 1977, pp. 209-214. (English translation of Russian
 original in <u>Zhurnal Éksperimental'nol i Teoreticheskol Fiziki</u>,
 Pis'ma v Redaktsiiu, Vol. 26, No. 4, 5 July 1977, pp. 322-327.)
- Gribkov, V. A., Nikulin, V. Ya., Semenov, O. G. and Sklizkov, G. V.,

 "Formation of a Relativistic Electron Beam in a Plasma Focus, Its

 Dynamics, and Its Interaction with a Flat Target," Soviet Journal of

 Plasma Physics, Vol. 4, No. 5, September/October 1978, pp. 589-594.

- (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 4, No. 5, September/October 1978, pp. 1056-1065.)
- Gribkov, V. A., Denus, S., Dubrovskii, A. V., Isakov, A. I., Kalachev, N. V., Krokhin, O. N., Nikulin, V. Ya., Sledzinski, S. and Czekaj, S., "Laser-Produced X-Ray Emission from a Plasma Focus," <u>Soviet</u> <u>Journal of Plasma Physics</u>, Vol. 11, No. 1, January 1985, pp. 70-73. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 11, No. 1, January 1985, pp. 117-122.)
- Grishin, S. D. and Kozlov, N. P., "The Use of Plasma Accelerators in Technology," Report No. FTD-MT-24-1043-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 2 August 1974. (English translation of Russian original in <u>Plazmennyye Uskoriteli, Izd vo</u> Mashinostroyeniye, pp. 15-25, Moscow, USSR, 1973.)
- Grishin, Yu. M., Kozlov, N. P. and Khvesyuk, V. I., "Circuit Equation for a Pulsed Plasma Accelerator," <u>Soviet Physics--Technical Physics</u>, Vol. 18, No. 4, October 1973, p. 542. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 43, No. 4, April 1973, pp. 860-861.)
- Grishin, Yu. M., Kozlov, N. P., Protasov, Yu. S. and Khvesyuk, V. I.,

 "Formation of a Plasma Focus in an Erosion Plasma Accelerator. I,"

 <u>Soviet Physics--Technical Physics</u>, Vol. 18, No. 7, January 1974, pp. 948-950. (English translation of Russian original in <u>Zhurnal</u>

 <u>Tekhnicheskoi Fiziki</u>, Vol. 43, No. 7, July 1973, pp. 1496-1500.)

- Grishin, Yu. M., Kozlov, N. P., Leskov, L. V. and Khvesyuz, V. I.,

 "Plasma Focus in Erosion Plasma Accelerators. II," Soviet Physics—

 Technical Physics, Vol. 20, No. 9, September 1975, pp. 1183-1187.

 (English translation of Russian original in Zhurnal Tekhnicheskoi

 Fiziki, Vol. 45, No. 9, September 1975, pp. 1869-1877.)
- Grishin, S. D., Litvak, A. K., Ogorodnikov, S. N. and Stepanov, V. N.,

 "Intermediate-Power Steady-State Plasma Accelerator," <u>Soviet</u>

 <u>Physics--Technical Physics</u>, Vol. 22, No. 2, February 1977, pp. 280283. (English translation of Russian original in <u>Zhurnal</u>

 <u>Tekhnicheskoi Fiziki</u>, Vol. 47, No. 2, February 1977, pp. 462-466.)
- Grossmann, W., Hameiri, E., Stevens, D. C., Schwarzmeier, J. L.,
 Weitzner, H., Byrne, R. N., Furth, H., Janos, A., Jardin, S.,
 Okabayashi, M., Okuda, H., Park, W., Sato, T., Sheffield, G.,
 Sinnis, J., Todd, A., Yamada, M., Aydemir, A., Chu, C. K. and Lui,
 H. C., "Formation and Evolution of Spheromak and General Compact
 Toroids," in Proceedings of the Eighth International Conference on
 Plasma Physics and Controlled Nuclear Fusion Research, Brussels,
 Belgium, 1-10 July 1980, Vol. I, IAEA-CN-38, International Atomic
 Energy Agency, Vienna, Austria, April 1981; Nuclear Fusion
 supplement 1981, pp. 455-468.
- Grozdovskiy, G. L., "The Use of Plasma Accelerators in Gas Dynamics,"

 Report No. FTD-MT-24-1044-74, Foreign Technology Division, WrightPatterson AFB, Ohio, 31 October 1974. (English translation of

- Russian original in <u>Plazmennyye Uskoriteli, Izd vo</u> Mashinostroyeniye, pp. 25-40, Moscow, USSR, 1973.)
- Gryziński, M., Nowikowski, J., Sadowski, M., Składnik-Sadowska, E. and Suckewer, S., "Research on a New Type of Plasma Injector," Plasma Physics, Vol. 10, No. 4, April 1968, pp. 450-451 (abstract only; included in article by) Lehnert, B., "Second European Conference on Controlled Fusion and Plasma Physics," Plasma Physics, Vol. 10, No. 4, April 1968, pp. 421-476.
- Gryzinski, M., Nowikowski, J. and Suckewer, S., "Time Behaviour of Spectral Lines and Dynamics of Processes in the Rod Plasma Injector (RPI)," in <u>Proceedings of the Third International Conference on Plasma Physics and Controlled Nuclear Fusion, Novosibirsk, USSR, 1-7 August 1968</u>, Vol. II, IAEA-CN-24, International Atomic Energy Agency, Vienna, Austria, March 1969, pp. 87-96.
- Gryziński, M., "A New Device for Creating a Strongly Focused Hot Plasma

 Jet-Rod Plasma Injector (RPI)," Report No. AEC-TR-7027/7-8 UC-34 TT

 69-50012/7-8, pp. 1-27, U. S. Atomic Energy Commission, Washington,

 D. C., 1970. (English translation of Polish original in Nukleonika,

 Vol. 14, No. 7/8, July/August 1969, pp. 679ff.)
- Gryziński, M., Nowikowski, J., Sadowski, M. and Składnik-Sadowska, E.,

 "Research on the Rod Plasma Injector (RPI)," Report No. AEC-TR
 7027/9-10 UC-34 TT 69-50012/9-10, pp. 1-8, U. S. Atomic Energy

 Commission, Washington, D. C., 1970. (English translation of Polish

- original in <u>Nukleonika</u>, Vol. 14, No. 9/10, September/October 1969, pp. 885ff.)
- Gryziński, M., Nowikowski, J. and Jakubowski, L., "Investigations of RPI in Dynamic Gas Conditions," Nukleonika, Vol. 21, No. 11/12, November/December 1976, pp. 1225-1236.
- Gryziński, M., Baranowski, J., Górski, E., Horodeński, A., Jakubowski, L., Langner, J., Sadowski, M., Składnik-Sadowska, E. and Zdanowski, K., "Ion Beam Measurements in Cylindrical Ion Implosion Fusion Facilities," in <u>Europhysics Conference Abstracts of the Tenth</u>

 <u>European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981</u>, Vol. 5G, Part I, pp. 345-348, Merz, W.

 J. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1981.
- Gubarev, V. Ya., Kozlov, N. P., Leskov, L. V. and Protasov, Yu. S.,

 "Monochromaticity of a Pulsed Ablation Accelerator," <u>Soviet Physics-Technical Physics</u>, Vol. 17, No. 2, August 1972, pp. 301-302.

 (English translation of Russian original in <u>Zhurnal Tekhnicheskoi</u>

 Fiziki, Vol. 42, No. 2, February 1972, pp. 379-381.)
- Gubarev, V. Ya., Kozlov, N. P., Leskov, L. V., Mikhailov, I. A. and Protasov, Yu. S., "Electron Density Measurement in a Pulsed Ablation Accelerator Plasma," <u>Soviet Physics--Technical Physics</u>, Vol. 17, No. 4, October 1972, pp. 650-652. (English translation of Russian

- original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 42, No. 4, April 1972, pp. 826-829.)
- Gubarev, V. Ya., Kozlov, N. P., Protasov, Yu. S. and Khvesyuk, V. I.,

 "Potential Drops near the Electrodes in a Pulsed Plasma Accelerator"

 <u>Soviet Physics--Technical Physics</u>, Vol. 17, No. 5, November 1972,

 pp. 818-819. (English translation of Russian original in <u>Zhurnal</u>

 Tekhnicheskoi Fiziki, Vol. 42, No. 5, May 1972, pp. 1033-1034.)
- Gubarev, V. Ya. and Kozlov, N. P., "Experimental Determination of Velocity of Pulsed Erosion Accelerator," Report No. FTD-HT-23-1079-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 22 October 1974. (English translation of Russian original in Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye, pp. 211-214, Moscow, USSR, 1973.)
- Gullickson, R. L. and Sahlin, H. L., "Activation of High Energy

 Deuterons in the Plasma Focus Device," Report No. UCRL-77173,

 Lawrence Livermore Laboratory, Livermore, California, 4 December 1975.
- Gullickson, R. L. and Barlett, R. H., "X-Ray Analysis for Electron Beam Enhancement in the Plasma Focus Device," in <u>Advances in X-Ray Analysis</u>, Vol. 18, Proceedings of the 23rd Annual Conference on Applications of X-Ray Analysis, Denver, Colorado, 7-9 August 1974, pp. 184-196, Pickles, W. L., Barrett, C. S., Newkirk, J. B. and Ruud, C. O. (eds.), Plenum Press, New York City, New York, 1975.

- Gullickson, R. L., Luce, J. S. and Sahlin, H. L., "Operation of a Plasma-Focus Device with D₂ and He³," <u>Journal of Applied Physics</u>, Vol. 46, No. 9, September 1977, pp. 3718-3722.
- Gullickson, R. L. and Sahlin, H. L., "Measurements of High-Energy

 Deuterons in the Plasma-Focus Device," <u>Journal of Applied Physics</u>,

 Vol. 49, No. 3, March 1978, pp. 1099-1105.
- Gullickson, R. L., Pickles, W. L., Price, D. F., Sahlin, H. L. and
 Wainwright, T. E., "Ion Beam Production in the Plasma Focus Device,"
 Report No. UCRL-81962, Lawrence Livermore Laboratory, Livermore,
 California, 13 April 1979.
- Gullickson, R. L., Gentilini, A., Rager, J. P. and Steinmetz, K., "High Energy Deuteron Beam Generation in Plasma Focus," Report No. 80.5,

 Associazione EURATOM--Comitato Nazionale Energia Nucleare sulla
 Fusione, Centro di Frascati, Rome, Italy, December 1980.
- Gullickson, R. L., Pickles, W. L., Price, D. F., Sahlin, H. L. and Wainwright, T. E., "Ion Beam Production in the Plasma Focus Device," in Energy Storage, Compression, and Switching, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 579-596, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.

- Gultekin, E., "A Study on the Velocity of Plasmoids from a Coaxial

 Plasma Gun," <u>Istanbul Universitesi Fen Fakultesi Mecmuasi, Seri C</u>,

 (Turkey), (currently titled <u>Review of the Faculty of Science</u>,

 University of Istanbul, Series C), Vol. 33, 1968, pp. 65-75.
- Gureev, K. G., Filippov, N. V. and Filippova, T. I., "Numerical Simulation of the Current-Shell 'Runaway' in a Plasma-Focus Apparatus," Soviet Journal of Plasma Physics, Vol. 1, No. 1, January/February 1975, pp. 64-67. (English translation of Russian original in Fizika Plasmy, Vol. 1, No. 1, January/February 1975, pp. 120-126.)
- Gureev, K. G., Imshennik, V. S., Filippova, T. I. and Filippov, N. V.,

 "Interaction of an Electron Beam with an Anode Surface," Soviet

 Journal of Plasma Physics, Vol. 1, No. 2, March/April 1975, pp. 102105. (English translation of Russian original in Fizika Plasmy, Vol.
 1, No. 2, March/April 1975, pp. 192-198.)
- Gureev, K. G., "Possible Ion Acceleration Mechanism in a Noncylindrical Z Pinch," Soviet Physics--Technical Physics, Vol. 25, No. 2, February 1980, pp. 192-195. (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 50, No. 2, February 1980, pp. 327-332.)
- Gushchin, I. S., Popov, Yu. P. and Savichev, V. V., "Unsteady Plasma

 Acceleration with Ablation of Dielectric," Soviet Journal of Plasma

 Physics, Vol. 2, No. 5, September/October 1976, pp. 413-417.

- (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 2, No. 5, September/October 1976, pp. 742-749.)
- Haas, R., Krompholz, H., Michel, L., Ruhl, F., Schonbach and Herziger,
 G., "Regular Density Structures in the Plasma Focus," Physics

 Letters, Vol. 88A, No. 8, 5 April 1982, pp. 403-404.
- Haas, C. R., Herziger, G., Neff, W. and Schneider, W., "A Plasma Focus with Improved Reproducility," in Proceedings of the Third
 International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983, Report No. IPF-83-6, pp. 83-86, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Haas, C. R., Herziger, G., Lebert, R. and Noll, R., "Dynamics of Microstructures," in <u>Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp. 87-90, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Haas, C. R., Noll, R., Ruhl, F. and Herziger, G., "Schlieren Diagnostics of the Plasma Focus," <u>Nuclear Fusion</u>, Vol. 24, No. 9, September 1984, pp. 1216-1220.

- Haas, C. R., Noll, R., Weikl, B. and Herziger, G., "Schlieren

 Diagnostics of the Plasma Focus," in <u>Proceedings of the Fourth</u>

 <u>International Workshop on Plasma Focus and Z-Pinch Research, Warsaw,</u>

 <u>Poland, 9-11 September 1985</u>, pp. 27-30, Denus, S. and Czekaj, S.

 (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw,

 Poland, 1985.
- Hagerman, D. C. and Osher, J. E., "Injection and Trapping of a $\beta = 1$ Plasma into a Cusped Magnetic Field," The Physics of Fluids, Vol. 4, No. 7, July 1961, pp. 905-911.
- Hagerman, D. C. and Osher, J. E., "Two High Velocity Plasma Guns," <u>The Review of Scientific Instruments</u>, Vol. 34, No. 1, January 1963, pp. 56-60.
- Haines, M. G., "Dense Plasma in Z-Pinches and the Plasma Focus,"

 Philosophical Transactions of the Royal Society of London, Vol.

 A300, No. 1456, 23 April 1981, pp. 649-663.
- Haines, M. G., "Ion Beam Formation in an m=0 Unstable Z Pinch," <u>Nuclear Instruments and Methods</u>, Vol. 207, No. 1/2, March/April 1983, pp. 179-185.
- Haines, M. G., Dangor, A. E., Folkierski, A., Baldock, P., Bessell, W.
 G., Bond, D. J., Challis, C. D., Choi, P., Coppins, M., FavreDominguez, M. B., Hammer, D. A., Lindman, E. L., Liu, J. R., Nave,
 G., Parfenov, O. G., Rickard, G. and Westlake, J., "Z-Pinch

Experiments and Theory," in <u>Proceedings of the Tenth International</u>

<u>Conference on Plasma Physics and Controlled Nuclear Fusion Research,</u>

<u>London, England, 12-19 September 1984</u>, Vol. 2, IAEA-CN-44,

International Atomic Energy Agency, Vienna, Austria, March 1985;

Nuclear Fusion supplement 1985, pp. 647-653.

- Halbach, K. and Baker, W. R., "Plasma Gun Aspects of an E x B System,"

 The Physics of Fluids, Vol. 7, No. 11, Part 2, November 1964, pp. S62-S66.
- Hamada, F., Shimoda, K. and Hirano, K., "Streak Mode Interferometric Study of Plasma Focus," <u>The Physics of Fluids</u>, Vol. 22, No. 6, June 1979, pp. 1217-1218.
- Han, K. S., Nam, S. H., and Lee, H. J., "High Power Blue-Green Laser by Hypocycloidal-Pinch Plasmas," <u>Journal of Applied Physics</u>, Vol. 55, No. 11, 1 June 1984, pp. 4113-4115.
- Han, K. S., Oh, C. H. and Lee, J. H., "A Spectrum Converter Dye for Enhancement of Blue-Green Laser Efficiency," <u>Journal of Applied Physics</u>, Vcl. 60, No. 10, 15 November 1986, pp. 3414-3416.
- Harder, C. R. and Forsen, H. K., "Investigation of the Gun Aspects of a Rotating Plasma Source," <u>Journal of Applied Physics</u>, Vol. 44, No. 1, January 1973, pp. 82-90.

- Harms, A. A. and Heindler, M., "The Matching of Dense Plasma Focus

 Devices with Fission Reactors," <u>Nuclear Science and Engineering</u>,

 Vol. 66, No. 1, April 1978, pp. 1-8.
- Harries, W. L., "X-Ray Emission from High Temperature Plasmas," Report
 No. NASA-CR-132500, National Aeronautical and Space Administration,
 Langley Research Center, Hampton, Virginia, July 1974.
- Harries, W. L., "X-Ray Emission from High Temperature Plasmas," Report
 No. NASA-CR-143264, National Aeronautical and Space Administration,
 Langley Research Center, Hampton, Virginia, July 1975.
- Harries, W. L., "X-Ray Emission from High Temperature Plasmas," Report
 No. NASA-CR-148313, National Aeronautical and Space Administration,
 Langley Research Center, Hampton, Virginia, July 1976.
- Harries, W. L., "X-Ray Emission from High Temperature Plasmas," Report
 No. NASA-CR-153290, National Aeronautical and Space Administration,
 Langley Research Center, Hampton, Virginia, July 1977.
- Harries, W. L., Lee, J. H. and McFarland, D. R., "Trajectories of High Energy Electrons in a Plasma Focus," <u>Plasma Physics</u>, Vol. 20, No. 2, February 1978, pp. 95-106.
- Harries, W. L., Lee, J. H. and McFarland, D. R., "Space and Time Resolved Emission of Hard X-Rays from a Plasma Focus," Plasma

 Physics, Vol. 20, No. 9, September 1978, pp. 963-969.

- Hart, P. J., "Plasma Acceleration with Coaxial Electrodes," <u>The Physics</u> of Fluids, Vol. 5, No. 1, January 1962, pp. 38-47.
- Hart, P. J., "Modified Snowplow Model for Coaxial Plasma Accelerators,"

 Journal of Applied Physics, Vol. 35, No. 12, December 1964, pp.

 3425-3431.
- Hartman, C. W., Condit, W. C., Granneman, E., Prono, D., Smith, A. C.,
 Jr., Taska, J. and Turner, W. C., "Flux Amplification in a CoaxialGun Produced Field-Reversed Plasma," in <u>Proceedings of the</u>
 International Conference on Plasma Physics, Nagoya, Japan, 7-11
 April 1980 (Joint Conference of Fourth Kiev International Conference
 on Plasma Theory and Fourth International Conference on Waves and
 Instabilities in Plasma), Vol. I, p. 34, Fusion Research Association
 of Japan, Nagoya, Japan, 1980.
- Hartman, C. W., Condit, W., Granneman, E. H. A., Prono, D., Smith, A. C., Jr., Taska, J. and Turner, W. C., "Field Reversal Produced by a Plasma Gun," in <u>Proceedings of the International Symposium on Physics of Open Ended Fusion Systems, Tsukuba, Japan, 15-18 April 1980</u>, Report No. CONF-800441, pp. 291-300, Plasma Research Center, University of Tsukuba, Tsukuba, Japan, 1980.
- Hartman, C. W., Hammer, J. H. and Eddleman, J., "Acceleration of Compact
 Torus Plasma Rings in a Coaxial Rail-Gun," Report No. UCRL-92689,
 Lawrence Livermore Laboratory, Livermore, California, 16 May 1985.

- Hartman, D., Eddleman, J. and Hammer, J. H., "Acceleration of Magnetized Plasma Rings," in <u>Proceedings of the Fifth Symposium on Physics and Technology of Compact Toroids in the Magnetic Fusion Energy Program, Bellevue, Washington, 16-18 November 1982</u>, Report No. CONF-821124, pp. 165-168, Hoffman, A. L. and Milroy, R. D. (eds.), Mathematical Sciences Northwest, Inc., Bellevue, Washington, January 1983.
- Hayd, A., Kaeppeler, H. J., Maurer, M. and Meinke, P., "The Calcuation of Turbulence Phenomena in Plasma Focus Dynamics Using REDUCE,"

 Report No. IPF-82-7, Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, May 1982.
- Henins, I., Henry, P. S., Lohr, J. and Marshall, J., "Coaxial Gun

 Development," in <u>Proceedings of the APS Topical Conference on Pulsed</u>

 <u>High-Density Plasmas, Los Alamos Scientific Laboratory, Los Alamos,</u>

 <u>New Mexico, 19-22 September 1967</u>, Report No. LA-3770, pp. E2-1-E2-5,

 Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 29

 September 1967.
- Henins, J. and Marshall, J., "Pulsed Plasma Gun Program," in Status

 Report of the LASL Controlled Thermonuclear Research Program for 12
 Month Period Ending October 31, 1967, Report No. LA-3831-MS, pp. 37
 44, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 19

 December 1967.
- Henins, I. and Marshall, J., "Summary of the Pulsed Plasma Gun Program," in Status Report of the LASL Controlled Thermonuclear Research

- Program for 12-Month Period Ending October 31, 1968, Report No. LA-4075-MS, p. 22, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 15 January 1969.
- Henins, I., Hoida, H. W., Jarboe, T. R., Linford, R. K., Marshall, J., McKenna, K. F., Platts, D. A. and Sherwood, A. R., "Physical Properties of Compact Toroids Generated by a Coaxial Source," Report No. LA-UR-80-3238, Los Alamos National Laboratory, Los Alamos, New Mexico, 1980 and Proceedings of the Third Symposium on the Physics and Technology of Compact Toroids in the Magnetic Fusion Energy Program, Los Alamos, New Mexico, 2-4 December 1980, Report No. LA-8700-C, pp. 101-104, Siemon, R. E. (ed.), Los Alamos National Laboratory, Los Alamos, New Mexico, March 1981.
- Herold, H., Mozer, A., Sadowski, M. and Schmidt, H., "Design and Calibration of a Thomson Ion Analyzer for Plasma Focus Studies," The Review of Scientific Instruments, Vol. 52, No. 1, January 1981, pp. 24-26.
- Herold, H., Bertalot, L., Deutsch, R., Grauf, W., Jäger, Kaeppeler, H.

 J., Lepper, F., Oppenländer, T., Schmidt, H., Schmidt, R., Schwarz,

 J., Schworer, K., Shakhatre, M., Hayd, A., Maurer, M. and Meinke,

 P., "Investigation of the Neutron Production Phases of a Large

 Plasma Focus Device," in <u>Proceedings of the Ninth International</u>

 Conference on Plasma Physics and Controlled Nuclear Fusion Research,

 Baltimore, Maryland, 1-8 September 1982, Vol. II, IAEA-CN-41,

International Atomic Energy Agency, Vienna, Austria, June 1983; Nuclear Fusion supplement 1983, pp. 405-413.

- Herold, H., Bertalot, L., Jäger, U., Schmidt, H., Schmidt, R. and
 Shakhatre, M., "Plasma Dynamics, Neutron and Ion Emission of the
 POSEIDON Plasma Focus," in <u>Europhysics Conference Abstracts of the</u>
 Eleventh European Conference on Controlled Fusion and Plasma
 Physics, Aachen, Federal Republic of Germany, 5-9 September 1983,
 Vol. 7D, Part I, pp. 477-480, Methfessel, S. (series ed.), Thomas,
 G. (managing ed.), European Physical Society, Geneva, Switzerland,
 1983.
- Herold, H. and Hayd, A., "Prospects of the Plasma Focus for Magnetic Fusion," in <u>Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp. 131-137, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Herold, H., "Present Status of Plasma Focus Research and Applications,"
 in <u>Proceedings of the Third International Workshop on Plasma Focus</u>
 Research, Stuttgart, Federal Republic of Germany, 12-13 September

 1983, Report No. IPF-83-6, pp. 139-140, Herold, H. and Kaeppeler, H.

 J. (eds.), Institut für Plasmaforschung der Universität Stuttgart,
 Stuttgart, Federal Republic of Germany, September 1983.

- Herold, H., Bertalot, L., Hirano, K., Jager, U., Kaeppeler, H. J.,
 Sadowski, M., Schmidt, H., Schmidt, R., Shakhatre, M., Shyam, A.,
 Bockle, G., Matl, K., Wenzel, N., Wolf, R., Batzner, R., Hinsch, H.
 and Hubner, K., "Two Phases of Neutron Production in the Poseidon
 Plasma Focus," in Proceedings of the Tenth International Conference
 on Plasma Physics and Controlled Nuclear Fusion Research, London,
 England, 12-19 September 1984, Vol. 2, IAEA-CN-44, International
 Atomic Energy Agency, Vienna, Austria, March 1985; Nuclear Fusion
 supplement 1985, pp. 579-589.
- Herold, H., Kaeppeler, H. J., Schmidt, H., Shakhatre, M., Wong, C. S.,

 Deeney, C. and Choi, P., "Progress in Plasma Focus Operation up to

 500 kJ Bank Energy," in <u>Proceedings of the Twelfth International</u>

 Conference on Plasma Physics and Controlled Nuclear Fusion Research,

 Nice, France, 12-19 October 1988, Vol. 2, IAEA-CN-50, International

 Atomic Energy Agency, Vienna, Austria, October 1989; <u>Nuclear Fusion</u>

 supplement 1989, pp. 587-598.
- Herold, H., "Physics and Technology of Large Plasma Focus Devices," in Laser and Plasma Technology, Proceedings of the Third Tropical College on Applied Physics, University of Malaya, Kuala Lumpur, Malaysia, 30 May--18 June 1988, pp. 21-45, Wong, C. S., Lee, S., Tan, B. C., Chew, A. C., Low, K. S. and Moo, S. P. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1990.

- Herziger, G., Krompholz, H., Michel, L. and Schönbach, K., "Suprathermal Microwave Emission from the Plasma Focus," Physics Letters, Vol. 64A, No. 1, 28 November 1977, pp. 51-52.
- Herziger, G., Krompholz, H., Michel, L., Schlieferbock, D. and Schonbach, K., "Hard X-Ray Emission from the Plasma Focus," Physics
 Letters, Vol. 69A, No. 1, 13 November 1978, pp. 37-38.
- Herziger, G., Krompholz, H., Schneider, W. and Schonbach, K., "A Steady-State Fluid Model of the Coaxial Plasma Gun," Physics Letters, Vol. 71A, No. 1, 16 April 1979, pp. 54-56.
- Herziger, G., Noll, R., Ruhl, F., Schmitt, K., Michel, L. and Krompholz, H., "Radiation and Particle Emission from a 1.6 kJ Plasma Focus," in Proceedings of the Third International Workshop on Plasma Focus

 Research, Stuttgart, Federal Republic of Germany, 12-13 September

 1983, Report No. IPF-83-6, pp. 31-34, Herold, H. and Kaeppeler, H.

 J. (eds.), Institut für Plasmaforschung der Universität Stuttgart,

 Stuttgart, Federal Republic of Germany, September 1983.
- Herziger, G., Krompholz, H., Neff, W., Noll, R., Ruhl, F., Schmitt, K. and Weikl, B., "Observation of Nonlinear Phenomena," in <u>Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp. 127-130, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.

- Hettel, H. J. and Michels C. J., "Correlation of Transient Spectra with Performance in Coaxial Plasma Guns," Report No. NASA-TN-D-4385, National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio, February 1968.
- Heywood, J. B., "Experiments in a Magnetically Driven Shock Tube with an Axial Magnetic Field," <u>The Physics of Fluids</u>, Vol. 9, No. 6, June 1966, pp. 1150-1157.
- Hilland, C. B., "Production and Diagnostic Measurements of a Pulsed High

 Density Kilovolt Plasma Employing a Noncylindrical Z Pinch," PhD

 dissertation, Ohio State University, Columbus, Ohio, 1970.
- Hirano, K., Irisawa, J. and Nakano, Y., "Impulsive Plasma Produced by a Coaxial Plasma Gun," <u>Japanese Journal of Applied Physics</u>, Vol. 8, No. 1, January 1969, pp. 108-110.
- Hirano, K., Shimoda, K., Horie, H., Komori, H. and Satoh, T., "Study of Coaxial Plasma Gun," <u>Electrical Engineering in Japan</u>, Vol. 92, No. 5, September/October 1972, pp. 11-18. (English translation of Japanese original in <u>Denki Gakkai Ronbunshi</u>, Vol. 92A, No. 9, September 1972, pp. 415-422.)
- Hirano, K. and Majima, K., "A Study of Plasma Focusing," <u>Electrical</u>

 <u>Engineering in Japan</u>, Vol. 96, No. 6, November/December 1976, pp. 16-22. (English translation of Japanese original in <u>Denki Gakkai</u>

 Ronbunshi, Vol. 96A, No. 11, November 1976, pp. 543-550.)

- Hirano, K., Shimoda, K. and Hamada, F., "Detailed Study of Dynamic

 Behaviour of a Focused Plasma by N₂ Laser Interferometry," <u>Japanese</u>

 <u>Journal of Applied Physics</u>, Vol. 17, No. 9, September 1978, pp.

 1619-1623.
- Hirano, K., Shimoda, K. and Emori, S., "System for Multiframing

 Interferometry and Its Application to a Plasma Focus Experiment,"

 The Review of Scientific Instruments, Vol. 50, No. 10, September 1979, pp. 1236-1238.
- Hirano, K., Shimoda, K., Matsushita, K. and Yamamoto, T., "Plasma

 Dynamics and Neutron Production in a Plasma Focus," in <u>Proceedings</u>

 of the International Conference on Plasma Physics, Nagoya, Japan, 7
 11 April 1980 (Joint Conference of Fourth Kiev International

 Conference on Plasma Theory and Fourth International Conference on

 Waves and Instabilities in Plasma), Vol. I, p. 162, Fusion Research

 Association of Japan, Nagoya, Japan, 1980.
- Hirano, K., Shimoda, K., Yamamoto, T., Sato, M., Kobayashi, K. and Misaizu, H., "Plasma Dynamics and Charged Particle Emission in the Plasma Focus," in <u>Europhysics Conference Abstracts of the Eleventh European Conference on Controlled Fusion and Plasma Physics, Aachen, Federal Republic of Germany, 5-9 September 1983, Vol. 7D, Part I, pp. 551-554, Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.</u>

- Hirano, K., Shimoda, K., Yamamoto, T., Sato, M., Kobayasi, K. and
 Misaizu, H., "Macroscopic Plasma Behavior and Charged Particle
 Acceleration in the Plasma Focus," in <u>Proceedings of the Third</u>

 <u>International Workshop on Plasma Focus Research, Stuttgart, Federal</u>

 <u>Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp.
 35-38, Herold, H. and Kaeppeler, H. J. (eds.), Institut fur

 Plasmaforschung der Universität Stuttgart, Stuttgart, Federal

 Republic of Germany, September 1983.
- Hirano, K., Yamamoto, T., Shimoda, K., Okabe, Y., Wakabayashi, K., Yokoyama, M., Yamamoto, Y., Yamada, Y., Kitagawa, Y. and Yamanaka, M., "Investigation of Plasma Dynamics and Emission in a Dense Plasma Focus," in Proceedings of the Eleventh International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Kyota, Japan, 13-20 November 1986, Vol. 2, IAEA-CN-47, International Atomic Energy Agency, Vienna, Austria, July 1987; Nuclear Fusion supplement 1987, pp. 583-592.

- Hirano, K. and Yamamoto, T., "Evidence of Turbulence in a Current

 Disrupted Region in a Plasma Focus," The Physics of Fluids, Vol. 31,

 No. 9, September 1988, pp. 2710-2713.
- Hogg, G. R. and Tendys, J., "Some X-Ray and Neutron Measurements on the Dense Plasma Focus," Report No. AAEC/E280, Australian Atomic Energy Commission, Research Establishment, Lucas Heights, Australia, August 1973.
- Hohl, F. and Gary, S. P., "Ion Heating in a Plasma Focus, "Report No. NASA-TN-D-7765, National Aeronautical and Space Administration, Langley Research Center, Hampton, Virginia, November 1974.
- Hohl, F., Gary, S. P. and Winters, P. A., "Electron Dynamics in a Plasma Focus," Report No. NASA TN D-8356, National Aeronautics and Space Administration, Langley Research Center, Hampton, Virginia, February 1977.
- Hohl, F. and Gary, S. P., "Electron Kinematics in a Plasma Focus," The Physics of Fluids, Vol. 20, No. 4, April 1977, pp. 683-687.
- Hoida, H. W., Barnes, C. W., Henins, I., Jarboe, T. R., Knox, S. O.,
 Marshall, J., Platts, D. A. and Sherwood, A. R., "Spectroscopic
 Studies of Impurity Control in Coaxial Sources for Spheromaks at Los
 Alamos," in <u>Proceedings of the Fifth Symposium on Physics and</u>
 <u>Technology of Compact Toroids in the Magnetic Fusion Energy Program,</u>
 Bellevue, Washington, 16-18 November 1982, Report No. CONF-821124,

- pp. 97-101, Hoffman, A. L. and Milroy, R. D. (eds.), Mathematical Sciences Northwest, Inc., Bellevue, Washington, January 1983.
- Hubner, K., Bruhns, H. and Steinmetz, K., "Fusion Reaction Rate for a Plasma Boiler Moving in an Ambient Plasma," <u>Physics Letters</u>, Vol. 69A, No. 4, 25 December 1978, pp. 269-272.
- Hubner, K., Bruhns, H. and Steinmetz, K., "Some Remarks on the
 Anisotropic Neutron Emission of a Mather-Type Plasma Focus," in
 Energy Storage, Compression, and Switching, Vol. 2, Proceedings of
 the Second International Conference on Energy Storage, Compression,
 and Switching, Venice, Italy, 5-8 December 1978, pp. 407-411, Nardi,
 V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York
 City, New York, 1983.
- Hubner, K., Rager, J. P. and Steinmetz, K., "Space-Resolved

 Investigations on the Plasma Focus Neutron Emission," in <u>Europhysics</u>

 <u>Conference Abstracts of the Tenth European Conference on Controlled</u>

 <u>Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981</u>, Vol.

 5G, Part I, pp. 265-268, Merz, W. J. (series ed.), Thomas, G.

 (managing ed.), European Physical Society, Geneva, Switzerland,
 1981.
- Humphries, S., Jr., Anderson R. J. M., Freeman, J. R. and Greenly, J.,

 "Pulsed Plasma Guns for Intense Ion Beam Injectors," The Review of

 Scientific Instruments, Vol. 52, No. 2, February 1981, pp. 162-171.

- Ikegami, K., Ozaki, A., Uyama, T., Satomi, N. and Watanabe, K.,
 "Formation of Magnetized Plasma Stream in the CTCC-I Experiment,"
 <u>Technology Reports of Osaka University</u>, Vol. 31, No. 1609, October 1981, pp. 221-227.
- Imshennik, V. S., "Hydrodynamic Instability of the Boundary of a Viscous
 Plasma in a Magnetic Field," Soviet Physics--Doklady, Vol. 17, No.
 6, December 1972, pp. 576-579. (English translation of Russian
 original in Doklady Akademii Nauk SSSR, Vol. 204, No. 6, June 1972,
 pp. 1335-1338.)
- Imshennik, V. S., Filippov, N. V. and Filippova, T. I., "Similarity
 Theory and Increased Neutron Yield in a Plasma Focus," <u>Nuclear</u>
 Fusion, Vol. 13, No. 6, December 1973, pp. 929-934.
- Imshennik, V. S., Zueva, N. M., Lokutsievskij, O. V. and Mikhajlova, M. S., "Non-Hydrodynamic Model of Plasma Focus Structure," in Proceedings of the Tenth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, London, England, 12-19
 September 1984, Vol. 2, IAEA-CN-44, International Atomic Energy Agency, Vienna, Austria, March 1985; Nuclear Fusion supplement 1985, pp. 561-567.
- Inogamov, N. A. and Anisimov, S. I., "Self-Similar Snowplow Plasma Flows," <u>Soviet Technical Physics Letters</u>, Vol. 3, No. 11, November 1977, pp. 457-459. (English translation of Russian original in

- <u>Pis'ma v Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 3, No. 11, 12 November 1977, pp. 1112-1116.)
- Itoh, M., Hatori, K. and Hirano, K., "A Method to Obtain Higher Current Density in the Plasma Focus," <u>Japanese Journal of Applied Physics</u>, Vol. 13, No. 6, June 1974, pp. 1033-1034.
- Ivanov, A. A., Timchenko, N. N., Khripunov, B. I. and Shapkin, V. V., "Influence of Atoms with High Ionization Potentials on a Discharge in Crossed E and H Fields," <u>Soviet Physics--Technical Physics</u>, Vol. 25, No. 11, November 1980, pp. 1343-1345. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 50, No. 11, November 1980, pp. 2295-2299.)
- Ivanov, V. D., Korzhavin, V. M., Moiseeva, M. P., Suchareva, N. K. and Filippova, T. I., "Effect of a Special Magnetic Field Configuration on the Formation of a Plasma Focus," in <u>Proceedings of the Sixth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 30 July--4 August 1973</u>, Vol. I, pp. 355-358, European Physical Society, Vienna, Austria, 1973.
- Ivanov, V. D., Kochetov, V. A., Moiseeva, M. P., Palkin, A. A.,
 Svirskij, Eh. B., Terent'ev, A. R., Filippova, T. I., Filippov, N.
 V., Veretennikov, V. A., Vyskubov, V. P., Gribkov, V. A.,
 Dubrovskij, A. V., Isakov, A. I., Kalachev, N. V., Kozlova, T. A.,
 Korzhavin, V. M., Krokhin, O. N., Nikulin, V. Ya., Semenov, O. G.,
 Silin, P. V., Suvorov, V. A. and Cheblukov, Yu. N., "Experimental

Studies on the Plasma Focus," in <u>Proceedings of the Eighth</u>

<u>International Conference on Plasma Physics and Controlled Nuclear</u>

<u>Fusion Research, Brussels, Belgium, 1-10 July 1980</u>, Vol. II, IAEA
CN-38, International Atomic Energy Agency, Vienna, Austria, June

1981; Nuclear Fusion supplement 1981, pp. 161-176.

- Jäger, U., Bertalot, L. and Herold, H., "Energy Spectra and Space

 Resolved Measurements of Fusion Reaction Protons from Plasma Focus

 Devices," The Review of Scientific Instruments, Vol. 56, No. 1,

 January 1985, pp. 77-80.
- Jager, U., Biermayer, W., Herold, H., Kaeppeler, H. J., Schmidt, H., Schmidt, R., Shakhatre, M. and Shyam, A., "Fusion Reaction Mechanisms in the Plasma Focus Poseidon," in <u>Europhysics Conference Abstracts of the Twelfth European Conference on Controlled Fusion and Plasma Physics, Budapest, Hungary, 2-6 September 1985</u>, Vol. 9F, Part I, pp. 542-545, Pocs, L. and Montvai, A. (eds.), Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1985.
- Jager, U. and Herold, H., "Fast Ion Kinetics and Fusion Reaction

 Mechanism in the Plasma Focus," <u>Nuclear Fusion</u>, Vol. 27, No. 3,

 March 1987, pp. 407-423.
- Jahn, R. G., "Unsteady Electromagnetic Acceleration," in <u>Physics of Electric Propulsion</u>, pp. 257-316, McGraw-Hill Book Company, New York City, New York, 1968.

- Jahn, R. G., von Jaskowsky, W. F. and Clark, K. E., "Quasi-Steady Plasma Acceleration," in <u>Dynamics of Ionized Gases</u>, Proceedings of the International Symposium on Dynamics of Ionized Gases sponsored by the International Union of Theoretical and Applied Mechanics, Tokyo, Japan, 13-17 September 1971, pp. 523-545, Lighthill, M. J., Imai, I. and Sato, H. (eds.), John Wiley & Sons, New York City, New York, 1973.
- Jakubowski, L. and Sadowski, M., "Correlation of X-Ray and Neutron

 Emission from an Ion Implosion System," Physics Letters, Vol. 116A,

 No. 2, 26 May 1986, pp. 49-53.
- Jalufka, N. W. and Lee, J. H., "Current Sheet Collapse in a Plasma Focus," The Physics of Fluids, Vol. 15, No. 11, November 1972, pp. 1954-1958.
- Jankowicz, Z., Jerzykiewicz, A., Nowikowski, J., Bartolik, B., Matusiak, A. and Rabiński, M., "Optimization of the Mather Type PF Devices

 Based on 2D Snow Plow Numerical Code and Analytical Considerations,"

 in Proceedings of the Ninth European Conference on Controlled Fusion

 and Plasma Physics, Oxford, England, 17-21 September 1979, p. 107,

 Culham Laboratory, Oxford, England, 1979.
- Jankowicz, Z., Masłowski, A., Jerzykiewicz, A., Rabiński, M.,

 Bartosiewicz, Z. and Kałat, J., "Computational Optimization of

 Thermonuclear Reaction Intensity for Mather's Type Plasma-Focus

 Devices," in Europhysics Conference Abstracts of the Tenth European

- Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981, Vol. 5G, Part I, pp. 341-344, Merz, W. J. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1981.
- Jankowicz, Z., "The Optimization Method for the Mather Plasma-Focus

 Device," in Proceedings of the Third International Workshop on

 Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13

 September 1983, Report No. IPF-83-6, pp. 91-94, Herold, H. and

 Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der

 Universität Stuttgart, Stuttgart, Federal Republic of Germany,

 September 1983.
- Jarboe, T. R., Henins, I., Hoida, H. W., Linford, R. K., Marshall, J., Platts, D. A. and Sherwood, A. R., "Production of Field-Reversed Configurations with a Magnetized Coaxial Plasma Gun," in <u>Proceedings of the International Symposium on Physics and Open Ended Fusion Systems, Tsukuba, Japan, 15-18 April 1980</u>, Report No. CONF-800441, pp. 263-271, Plasma Research Center, University of Tsukuba, Tsukuba, Japan, 1980.
- Jarboe, T. R., Henins, I., Hoida, H. W., Marshall, J. and Sherwood, A.

 R., "Magnetized Gun Experiments," in <u>Proceedings of the US-Japan</u>

 <u>Joint Symposium on Compact Toruses and Energetic Particle Injection,</u>

 <u>Plasma Physics Laboratory, Princeton, New Jersey, 12-14 December</u>

 <u>1979</u>, Report No. PPPL-1755, pp. 53-56, Princeton Plasma Physics

 Laboratory, Princeton, New Jersey, March 1981.

- Jarboe, T. R., Henins, I., Hoida, H. W., Linford, R. K., Marshall, J., Platts, D. A. and Sherwood, A. R., "Gun-Generated Compact Tori at Los Alamos," in <u>Proceedings of the Reversed-Field Pinch Theory</u>

 <u>Workshop, Los Alamos, New Mexico, 29 April--2 May 1980</u>, Report No. LA-8944-C, pp. 149-154, Lewis, H. R. (ed.), Los Alamos National Laboratory, Los Alamos, New Mexico, January 1982.
- Jassby, D. L., "Maximum Neutron Yields in Experimental Fusion Devices," report no. PPPL-1515, Plasma Physics Laboratory, Princeton University, Princeton, New Jersey, February 1979.
- Jerzykiewicz, A., Jonco, A., Nowikowski, J., Pochrybiniak, C. and
 Waliszewski, J., "The Reproducibility of Neutron Yield and Discharge
 Symmetry of the PF Device," in <u>Europhysics Conference Abstracts of</u>
 the Tenth European Conference on Controlled Fusion and Plasma
 Physics, Moscow, USSR, 14-19 September 1981, Vol. 5G, Part I, pp.
 337-340, Merz, W. J. (series ed.), Thomas, G. (managing ed.),
 European Physical Society, Geneva, Switzerland, 1981.
- Jerzykiewicz, A., Bielik, M., Jankowicz, Z., Kocięka, K., Kociński, L., Kuciński, J., Lipiński, B., Sadowski, M., Witkowski, J., Wyszyński, W., Borowiecki, M., Czekaj, S., Denus, S. and Skrzeczanowski, W., "Preliminary Investigations of 360 kJ Plasma Focus Device," in Europhysics Conference Abstracts of the Eleventh European Conference on Controlled Fusion and Plasma Physics, Aachen, Federal Republic of Germany, 5-9 September 1983, Vol. 7D, Part I, pp. 485-488,

- Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.
- Jerzykiewicz, A., Bielik, M., Jankowicz, Z., Kocięcka, K., Kociński, L., Kuciński, J., Lipiński, B., Sadowski, M., Witkowski, J., Wyszyński. W., Borowiecki, M., Czekaj, S., Denus, S. and Skrzecsanowski, W., "Preliminary Investiagions of 360 kJ Plasma Focus Device Part II," in Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983, Report No. IPF-83-6, pp. 17-20, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Jerzykiewicz, A., Bielik, M., Jakobowski, L., Jankowicz, Z., Kociecka, K., Kuciński, J., Rydygier, E., Sadowski, M., Zebrowski, J., Borowiecki, M., Czekaj, S., Denus, S., Kasperczuk, A., Paduch, M., Pisarczyk, T. and Skrzeczanowski, W., "Neutron, Ion and X-Ray Emission from a 360 kJ Plasma Focus Device," in Proceedings of the Tenth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, London, England, 12-19 September 1984, Vol. 2, IAEA-CN-44, International Atomic Energy Agency, Vienna, Austria, March 1985; Nuclear Fusion supplement 1985, pp. 591-598.
- Jerzykiewicz, A. and Kocięcka, K., "Influence of Non-Linear Damping
 Resistors in the Electrical Circuit on the Neutron Yield of PFDevices," in <u>Proceedings of the Fourth International Workshop on</u>
 Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September

- 1985, pp. 40-42, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Jerzykiewicz, A., Kocięcka, K. and Kociński, L., "Preliminary

 Investigations of PF-360 Device with a Predischarge," in <u>Proceedings</u>

 of the Fourth International Workshop on Plasma Focus and Z-Pinch

 Research, Warsaw, Poland, 9-11 September 1985, pp. 71-73, Denus, S.

 and Czekaj, S. (eds.), Institute of Plasma Physics and Laser

 Microfusion, Warsaw, Poland, 1985.
- Jerzykiewicz, A., Bielik, M., Brandt, Sz., Kocięcka, K., Kociński, L., Kuciński, J. and Nawrot, W., "New Results of Plasma-Focus Emission Optimization," in <u>Proceedings of the 14th European Conference on Controlled Fusion and Plasma Physics, Madrid, Spain, 22-26 June 1987</u>, Vol. 11D, Part II, p. 521, Engelmann, F. and Alvarez Rivas, J. L. (eds.) Europhysics Conference Abstracts, European Physical Society, 1987.
- Jerzykiewicz, A., Brandt, S., Kocięcka, K., Nawrot, W., Jakubowski, L, Baranowski, J., Sadowski, M., Składnik-Sadowska, E., Szydłowski, A. and Zebrowski, J., "Plasma Focus Research at the Institute for Nuclear Studies, Świerk," in Proceedings-of-the-Twelfth
 International Conference on Plasma Physics and Controlled Nuclear

 Fusion Research, Nice, France, 12-19 October 1988, Vol. 2, IAEA-CN-50, International Atomic Energy Agency, Vienna, Austria, October 1989; Nuclear Fusion supplement 1989, pp. 737-741.

- Johansen, A. E. and Michels, C. J., "Experimental and Theoretical Performance of Coaxial Plasma Guns," Report No. NASA-TN-D-3469, National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio, July 1966.
- Johnson, D. J., "An X-Ray Spectral Measurement System for Nanosecond Plasmas," <u>The Review of Scientific Instruments</u>, Vol. 45, No. 2, February 1974, pp. 191-194.
- Johnson, D. J., "Study of the X-Ray Production Mechanism of a Dense Plasma Focus," <u>Journal of Applied Physics</u>, Vol. 45, No. 3, March 1974, pp. 1147-1153.
- Jurak, K. and Offenberger, A. A., "Shocked Layer in a Coaxial Plasma Gun," The Physics of Fluids, Vol. 15, No. 11, November 1972, pp. 2069-2071.
- Kaeppeler, H. J. and Ruhs, N., "Similarity Laws in Turbulent Focus

 Plasma with Beam-Beam Neutron Production," Physics Letters, Vol.

 49A, No. 5, 7 October 1974, pp. 383-385.
- Kaeppeler, H. J., Ruhs, N., Trunk, M. and Decker, G., "A Theoretical Model for the Mather-type Plasma Focus," in <u>Proceedings of the Seventh European Conference on Controlled Fusion and Plasma Physics, Lausanne, Switzerland, 1-5 September 1975</u>, Vol. I, p. 63, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, 1975.

- Kaeppeler, H. J., "Neutron Production in the Dense Plasma Focus," in

 Proceedings of the Sixth International Conference on Plasma Physics
 and Controlled Fusion Research, Berchtesgaden, Federal Republic of
 Germany, 6-13 October 1976, Vol. III, IAEA-CN-35, International
 Atomic Energy Agency, Vienna, Austria, May 1977; Nuclear Fusion
 supplement 1977, pp. 437-439.
- Kaeppeler, H. J., "Basic Physical Phenomena, Neutron Production and Scaling of the Dense Plasma Focus," Report No. IPF-77-7, Institut fur Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, 1977.
- Kaeppeler, H. J., "The Basic Equations for a Four-Component Theory of
 Turbulent Magneto-Plasmadynamics," Report No. IPF-83-3, Institut fur
 Plasmaforschung der Universität Stuttgart, Stuttgart, Federal
 Republic of Germany, April 1983.
- Kaeppeler, H. J., Hayd, A. and Maurer, M., "Theoretical Treatment of Turbulent Plasma Dynamics," in <u>Proceedings of the Third</u> <u>International Workshop on Plasma Focus Research, Stuttgart, Federal</u> <u>Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp. 107-110, Herold, H. and Kaeppeler, H. J. (eds.), Institut fur Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Kaeppeler, H. J., "Status of Theoretical Work," in <u>Proceedings of the</u>

 <u>Third International Workshop on Plasma Focus Research, Stuttgart,</u>

- Federal Republic of Germany, 12-13 September 1983, Report No. IPF-83-6, pp. 143-144, Herold, H. and Kaeppeler, H. J. (eds.), Institut "fur Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Kaliski, S., Baranowski, J., Borowiecki, M., Denus, S., Gryziński, M.,

 Jach, K., Jerzykiewicz, A., Kielesiński, M., Kowalski, S., Kubicki,

 J., Kurzyński, Z., Nowikowski, J., Parys, P., Rusinowicz, T.,

 Sadowski, M., Wawer, J., Wolski, J. and Wolowski, J., "Neutron Yield

 Enhancement in a Focus-Laser Experiment," in Proceedings of the

 Seventh European Conference on Controlled Fusion and Plasma Physics,

 Lausanne, Switzerland, 1-5 September 1975, Vol. II, p. 281, Ecole

 Polytechnique Federale de Lausanne, Lausanne, Switzerland, 1975.
- Kalmykov, A. A., Timofeev, A. D., Pankrat'ev, Yu. I., Tereshin, V. I., Trubchaninov, S. A., Nozdrachev, M. G., Naboka, V. A. and Safranov, B. G., "Plasma Guns Investigation," in <u>Proceedings of the Sixth International Conference on Phenomena in Ionized Gases, Paris, France, 8-13 July 1963</u>, Vol. IV, pp. 255-264, Hubert, P. and Cremieu-Alcan, E. (eds.)
- Kalmykov, A. A., Trubchaninov, S. A., Naboka, V. A. and Zlatopol'skii, L. A., "Energy Spectra and Structure of the Plasmoids in a Coaxial Plasma Source," <u>Soviet Physics--Technical Physics</u>, Vol. 9, No. 6, December 1964, pp. 779-783. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 34, No. 6, June 1964, pp. 1005-1010.)

- Kalmykov, A. A., Timofeev, A. D., Shevchuk, B. A. and Arzebashev, V. I., "The Experimental Study of the Low Pressure Discharge in the Coaxial Plasma Gun," in <u>Proceedings of the Eighth International Conference on Phenomena in Ionized Gases, Vienna, Austria, 27 August--2 September 1967</u>, p. 162, International Atomic Energy Agency, Vienna, Austria, 1967.
- Kalmykov, A. A., Trubchaninov, S. A. and Naboka, V. A., "Instability Development in a Plasmoid Injected into an Axially Symmetrical Magnetic Field," in <u>Investigation of Plasmoids (Selected Articles)</u>, Report No. FTD-HT-23-777-67, pp. 1-18, Foreign Technology Division, Wright-Patterson AFB, Ohio, 21 September 1967. (English translation of Russian original in <u>UkrSSR Issledovaniye Plazmennykh Sgustkov</u>, Kiev, USSR, 1965.)
- Kalmykov, A. A., Pankrat'ev, Yu. I., Nozdrachev, M. G. and Shevchuk, B. A., "Investigation of a Discharge in a Pulsed Plasma Source," in Investigation of Plasmoids (Selected Articles), Report No. FTD-HT-23-777-67, pp. 39-50, Foreign Technology Division, Wright-Patterson AFB, Ohio, 21 September 1967. (English translation of Russian original in UkrSSR Issledovaniye Plazmennykh Sgustkov, pp. 156-181, Kiev, USSR, 1965.)
- Kalmykov, A. A., Timofeev, A. D., Pankrat'ev, Yu. I., Artsebashev, V. I. and Khizhnyak, N. A., "Current Sheet and Plasma Acceleration in a Coaxial Plasma Gun," <u>Soviet Physics--Technical Physics</u>, Vol. 12, No. 5, November 1967, pp. 630-637. (English translation of Russian

- original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 37, No. 5, May 1967, pp. 877-887.)
- Kalmykov, A. A. and Trubchaninov, S. A., "Rotation and Instability in Plasmoids Moving into a Magnetic Field," <u>Soviet Physics--Technical</u> <u>Physics</u>, Vol. 14, No. 10, April 1970, pp. 1379-1386. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 39, No. 10, October 1969, pp. 1834-1844.)
- Kalmykov, A. A., Timofeev, A. D. and Shevchuk, B. A., "Plasma Acceleration under Various Operating Conditions in a Pulsed Coaxial Plasma Accelerator," <u>Soviet Physics-Technical Physics</u>, Vol. 15, No. 12, June 1971, pp. 2002-2009. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 40, No. 12, December 1970, pp. 2553-2562.)
- Kalmykov, A. A., Timofeev, A. D. and Shevchuk, B. A., "Energy
 Characteristics of a Pulsed Coaxial Plasma Accelerator," Soviet

 Physics--Technical Physics, Vol. 18, No. 12, June 1974, pp. 16011603. (English translation of Russian original in Zhurnal

 Tekhnicheskoi Fiziki, Vol. 43, No. 12, December 1973, pp. 25472552.)
- Kalmykov, A. A. and Leskov, L. V., "Pulsed Power Accelerators," Report

 No. FTD-MT-24-1072-74, Foreign Technology Division, Wright-Patterson

 AFB, Ohio, 15 August 1974. (English translation of the Russian

- original in <u>Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye</u>, pp. 183-191, Moscow, USSR, 1973.)
- Kalmykov, A. A. and Timofeev, A. D., "Corpuscular Diagnostic Methods for Plasma in Pulsed Coaxial Accelerator," Report No. FTD-HT-23-1096-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 11 October 1974. (English translation of the Russian original in <u>Plazmennyye</u> <u>Uskoriteli, Izd vo Mashinostroyeniye</u>, pp. 278-281, Moscow, USSR, 1973.)
- Kalmykov, A. A., Timofeev, A. D. and Shevchuk, B. A., "Particle-Beam Measurement of the Density of Neutral Gas and Plasma in a Pulsed Coaxial Accelerator," <u>Soviet Physics--Technical Physics</u>, Vol. 20, No. 2, February 1975, pp. 191-194. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 45, No. 2, February 1975, pp. 301-307.)
- Kalmykov, A. A., Nikol'skii, I. K., Pavlichenko, O. S. and Shevchuk, B. A., "Interferometry Study of the Dynamics of the Current Sheet in a Pulsed Plasma Accelerator at 10.6 μ," <u>Soviet Physics--Technical Physics</u>, Vol. 22, No. 4, April 1977, pp. 474-477. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 47, No. 4, April 1977, pp. 787-794.)
- Kalmykov, A. A., Kutsyn, A. A., Maznichenko, M. E., Nikol'skii, I. K., Pavlichenko, O. S. and Shevchuk, B. A., "Turbulent Processes in a Pulsed Coaxial Plasma Gun," in Plasma Physics and Problems of

Controlled Thermonuclear Reactions, Report No. UCRL-TRANS-11487, pp. 57-77, Tolok, V. T. (ed.), Lawrence Livermore Laboratory, Livermore, California, June 1979. (English translation of Russian original in Fizika Plazmy i Problemy Upravlyayemykh Termoyadernykh Reaktsii, No. I(6), Report No. KHFTI 77-39, pp. 25-31, Voprosy Atomnoi Nauki i Tekhniki-Seriya, Physical-Technical Institute, Academy of Sciences of the USSR, Kharkov, USSR, 1977.)

- Kalmykov, A. A., Tereshin, V. I., Chebotarev, V. V. and Yakubovskii, V. G., "Investigation of High-Energy Plasma Burst Formation in a Complex Plasma Injector System," in <u>Plasma Physics and Problems of Controlled Thermonuclear Reactions</u>, Report No. UCRL-TRANS-11487, pp. 103-132, Tolok, V. T. (ed.), Lawrence Livermore Laboratory, Livermore, California, June 1979. (English translation of Russian original in <u>Fizika Plazmy i Problemy Upravlyayemykh Termoyadernykh Reaktsil</u>, No. I(6), Report No. KHFTI 77-39, Voprosy Atomnol Nauki i Tekhniki-Seriya, Physical-Technical Institute, Academy of Sciences of the USSR, Kharkov, USSR, 1977.)
- Kamrukov, A. S., Kozlov, N. P. and Protasov, Yu. S., "Dynamics and Radiation of Cumulative Plasmadynamic Discharges," <u>Soviet Journal of Plasma Physics</u>, Vol. 5, No. 2, March/April 1979, pp. 206-210. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 5, No. 2, March/April 1979, pp. 368-375.)
- Karpov, G. V., Smirnov, E. N. and Suvorov, V. N., "Axial Motion of Current Shell in a Dense Plasma Focus," <u>Soviet Physics--Technical</u>

Physics, Vol. 21, No. 3, March 1976, pp. 293-296. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 46, No. 3, March 1976, pp. 514-518.)

- Kartashev, K. B., Pistunovich, V. I., Platonov, V. V., Ryutov, D. D. and Filimonova, E. A., "Investigation of Ion-Cyclotron Instability in a Plasma Blob," in Proceedings of the Third International Conference on Plasma Physics and Controlled Nuclear Fusion, Novosibirsk, USSR, 1-7 August 1968, IAEA-CN-24, International Atomic Energy Agency, Vienna, Austria, 1969; Nuclear Fusion special supplement 1969, pp. 177-182. (English translation of Russian original in Proceedings of the Third International Conference on Plasma Physics and Controlled Nuclear Fusion, Novosibirsk, USSR, 1-7 August 1968, Vol. II, IAEA-CN-24, International Atomic Energy Agency, Vienna, Austria, March 1969; Nuclear Fusion supplement 1969, pp. 335-346.)
- Kartashev, K. B., Pistunovich, V. I., Platonov, V. V. and Filimonova, E. A., "An Injector for Fast Atom Bunches," <u>Plasma Physics</u>, Vol. 14, No. 7, July 1972, pp. 737-742.
- Kash, S. W., "Efficiency Considerations in Electrical Propulsion," in <u>Plasma Acceleration</u>, Fourth Lockheed Symposium on Magnetohydrodynamics, Palo Alto, California, 2 December 1959, pp. 79-93, Kash, S. W. (ed.), Stanford University Press, Stanford, California, 1960.

- Kawahata, K. and Miyamota, K., "Coaxial Plasma Gun with Outer Electrode of Cage Structure near Fast Acting Valve," <u>Japanese Journal of</u>
 Applied Physics, Vol. 12, No. 5, May 1973, pp. 774-775.
- Keck, J. C., "Current Distribution in a Magnetic Annular Shock Tube,"

 The Physics of Fluids, Vol. 5, No. 5, May 1962, pp. 630-632.
- Keck, J., "Current Speed in an Annular Shock Tube," <u>The Physics of</u> Fluids, Vol. 7, No. 11, Part 2, November 1964, pp. S16-S27.
- Kelly, H., Garcia, G. and Bilbao, L., "On the Precursor Generated in Plasma Focus Devices Operated with Molecular Deuterium," Plasma

 Physcis and Commolled Fusion, Vol. 31, No. 7, June 1989, pp. 1017-1027.
- Khautlev, E. Yu., Krauz, V. I. and Salukvadze, R. G., "Some Features of Ion Beam Formation in a Plasma Focus," in <u>Europhysics Conference</u>

 <u>Abstracts of the Eleventh European Conference on Controlled Fusion and Plasma Physics, Aachen, Federal Republic of Germany, 5-9

 <u>September 1983</u>, Vol. 7D, Part I, pp. 505-508, Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.</u>
- Khautiev, E. Yu., Krauz, V. I., Reshetnyak, N. G., Salukvadze, R. G., Batenyuk, A. A., Chkhaidze, A. Ch., Koshelev, K. N., Sidelnikov, Yu. V., Gribkov, V. A. and Krokhin, O. N., "Experimental Studies on the Plasma Focus," in Proceedings of the Twelfth International

Conference on Plasma Physics and Controlled Nuclear Fusion Research,

Nice, France, 12-19 October 1988, Vol. 2, IAEA-CN-50, International

Atomic Energy Agency, Vienna, Austria, October 1989; Nuclear Fusion

supplement 1989, pp. 579-586.

- Khizhnyak, N. A. and Kolesnikov, P. M., "Theory of Electrodynamic Acceleration of Plasma Bursts in a Coaxial System," Soviet Physics—

 Technical Physics, Vol. 8, No. 7, January 1964, pp. 616-617.

 (English translation of Russian original in Zhurnal Tekhnicheskoi

 Fiziki, Vol. 33, No. 7, July 1963, pp. 820-822.)
- Khizhnyak, N. A., "On the Problem of Plasma Acceleration in Crossed Fields," Report No. FTD-HT-23-819-67, Foreign Technology Division, Wright-Patterson AFB, Ohio, 4 October 1967. (English translation of "K Voprosu Ob Uskorenii Plazmy v Skreschennykh Polyakh," in <u>UkrSSR</u> Issledovaniye Plazmennykh Sgustkov, pp. 137-148, Kiev, USSR, 1965.
- Kholev, S. R. and Poltavchenko, D. S., "Acceleration of the Plasma of a Discharge and Production of Strong Shock Waves in a Camera with Coaxial Electrodes," <u>Soviet Physics--Doklady</u>, Vol. 5, No. 2, September/October 1960, pp. 356-360. (English translation of Russian original in <u>Doklady Akademii Nauk SSSR</u>, Vol. 131, No. 5, April 1960, pp. 1060-1063.)
- Kies, W., van Calker, C., Decker, G., Malzig, M. and Ziethen, G., "300 kV Plasma Focus SPEED2: First Results from 3 MA Discharges," in Europhysics Conference Abstracts of the Twelfth European Conference

- on Controlled Fusion and Plasma Physics, Budapest, Hungary, 2-6

 September 1985, Vol. 9F, Part I, pp. 566-569, Pocs, L. and Montvai,

 A. (eds.), Methfessel, S. (series ed.), Thomas, G. (managing ed.),

 European Physical Society, Geneva, Switzerland, 1985.
- Kies, W., "Power Limits for Dynamical Pinch Discharges?" Plasma Physics
 and Controlled Fusion, Vol. 28, No. 11, November 1986, pp. 16451657.
- Kies, W., "Plasma Focus--Physics and Technology," in Second Tropical

 College on Applied Physics: Laser and Plasma Technology, University
 of Malaya, Malaysia, 17 March--5 April 1986, pp. 87-137, Lee, S.,
 Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and
 Chen, Y. H. (eds.), World Scientific Publishing Company, Inc.,
 Teaneck, New Jersey, 1988.
- Kim, K., "Luminescent Characteristics Study of Mather-Type Dense Plasma Focus and Applications to Short-Wavelength Optical Pumping," Report No. AFOSR-TR-86-0688. Air Force Office of Scientific Research, Bolling AFB, Washington, D. C., June 1986.
- Kim, K. K., "Optical Pumping of High Power Lasers with an Array of Plasma Pinches," Report No. AFOSR-TR-86-0479, Air Force Office of Scientific Research, Bolling AFB, Washington, D. C., 1 April 1986.
- Kirdyashev, K. P., Potapov, A. V., Tsvetkova, L. E., Bozhko, I. D. and Chukhlantsev, A. A., "RF Waves in Nonequilibrium-Plasma

Accelerator," <u>Soviet Journal of Plasma Physics</u>, Vol. 2, No. 4, July/August 1976, pp. 296-300. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 2, No. 4, July/August 1976, pp. 542-548.)

- Kirk, R. E., Forrest, M. J., Muir, D. G. and Peacock, N. J., "Laser Light Scattering from Density Fluctuations in the Culham Focus," in Proceedings of the Third International Workshop on Plasma Focus

 Research, Stuttgart, Federal Republic of Germany, 12-13 September

 1983, Report No. IPF-83-6, pp. 119-122, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Kislov, A. Ya., Morozov, A. I. and Tilinin, G. N., "Distribution of Potential in a Quasistationary Coaxial Plasma Injector," Soviet

 Physics--Technical Physics, Vol. 13, No. 6, December 1968, pp. 736-738. (English translation of Russian original in Zhurnal
 Tekhnicheskoi Fiziki, Vol. 38, No. 6, June 1968, pp. 975-978.)
- Kislov, A. Ya. and Morozov, A. I., "Distribution of Total Pressure in a Plasma Flow Issuing from an Injector," <u>Soviet Physics--Technical Physics</u>, Vol. 15, No. 4, October 1970, pp. 595-598. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 40, No. 4, April 1970, pp. 768-771.)

- Kitagawa, Y., The n, A., Setoyama, E., Yamabe, C. and Yokoyama, M.,

 "Heating of Plasma Focus by TEA CO₂ Laser," <u>Journal of the Physical</u>

 Society of Japan, Vol. 41, No. 3, September 1976, pp. 1081-1082.
- Kitagawa, Y., Yamada, Y., Tsuda, I., Yokoyama, M. and Yamanaka, C., "Upper-Hybrid Resonance Absorption of Laser Radiation in a Magnetized Plasma," <u>Physical Review Letters</u>, Vol. 43, No. 25, 17 December 1979, pp. 1875-1878.
- Kitagawa, Y., Yamada, Y., Ishizaki, A., Naito, M., Yokoyama, M. and Yamanaka, C., "Intense Ion Beams by Dense Plasma Focus," in Proceedings of the International Conference on Plasma Physics,

 Nagoya, Japan, 7-11 April 1980 (Joint Conference of Fourth Kiev

 International Conference on Plasma Theory and Fourth International

 Conference on Waves and Instabilities in Plasma), Vol. I, p. 164,

 Fusion Research Association of Japan, Nagoya, Japan, 1980.
- Kitagawa, Y., Thien, A., Yamada, Y., Yokoyama, M. and Yamanaka, C.,

 "Plasma Focus Neutron Yield Dependence on CO₂-Laser Timing," <u>Journal</u>
 of the Physical Society of Japan, Vol. 51, No. 12, December 1982,
 pp. 3759-3760.
- Kobata, T., "Important Actions of the Inertial Force of Plasma Sheath in the Plasma Focus," in <u>Proceedings of the International Conference on Plasma Physics</u>, Nagoya, Japan, 7-11 April 1980 (Joint Conference of <u>Fourth Kiev International Conference on Plasma Theory and Fourth</u>
 International Conference on Waves and Instabilities in Plasma), Vol.

- I, p. 163, Fusion Research Association of Japan, Nagoya, Japan, 1980.
- Kobata, T., "The Electrode Shape Effects for the Neutron Yield of a 3-kJ Filippov Type Plasma Focus," in Energy Storage, Compression, and Switching, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 247-266, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- Kobata, T. S., "Correlation between Plasma Current and Neutron Yield in a Minimum Size Filippov-Type Plasma Focus," <u>Plasma Physics and</u>
 Controlled Fusion, Vol. 26, No. 3, March 1984, pp. 575-584.
- Kolb, A. C. and Griem, H. R., "High-Temperature Shock Waves," in Atomic and Molecular Processes, pp. 141-205, Bates, D. R. (ed.), Academic Press, New York City, New York, 1962.
- Kolesnikov, P. M., "Effect of the Electrodynamic Properties of a Plasmoid on the Acceleration Process in a Coaxial Accelerator,"

 <u>Soviet Physics--Technical Physics</u>, Vol. 9, No. 11, May 1965, pp. 1491-1495. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 34, No. 11, November 1964, pp. 1933-1938.)
- Kolesnikov, P. M., Azarevich, A. Ya., Vyatkin, G. I., Zorik, V. Ya., Kashpruk, V. F. and Shevchenko, V. V., "Electrodynamic Plasma

Acceleration in High-Current Pulsed Accelerators," in <u>Soviet</u>

<u>Physics--Technical Physics</u>, Vol. 14, No. 5, November 1969, pp. 622-626. (English translation of Russian original in <u>Zhurnal</u>

Tekhnicheskoi Fiziki, Vol. 39, No. 5, May 1969, pp. 829-836.)

- Komel'kov, V. S., Skvortsov, Yu. V. and Tereshchenko, V. N., "Directed Shock Waves in Intense Sparks," <u>Soviet Physics--Technical Physics</u>, Vol. 8, No. 6, December 1963, pp. 537-540. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 33, No. 6, June 1963, pp. 719-723.)
- Komel'kov, V. S. and Modzolevskii, V. I., "Formation of a Plasma Jet in Air at Atmospheric Pressure," <u>Soviet Physics--Technical Physics</u>, Vol. 16, No. 5, November 1971, pp. 758-764. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 41, No. 5, May 1971, pp. 963-971.)
- Komel'kov, V. S. and Modzolevskii, V. I., "Generation of Shock Waves by 'Exploding' Current Sheath," <u>JETP Letters</u>, Vol. 15, No. 6, 20 March 1972, pp. 210-212. (English translation of Russian original in <u>Zhurnal Eksperimental'nol i Teoreticheskol Fiziki, Pis'ma v</u>

 Redaktsiiu, Vol. 15, No. 6, 20 March 1972, pp. 299-301.)
- Komel'kov, V. S. and Modzolevskii, V. I., "Coaxial Accelerator for Dense Plasmas," <u>Soviet Journal of Plasma Physics</u>, Vol. 3, No. 5, September/October 1977, pp. 533-538. (English translation of Russian

- original in <u>Fizika Plasmy</u>, Vol. 3, No. 5, September/October 1977, pp. 971-980.)
- Komel'kov, V. S., Perebeinos, V. V. and Solomonov, M. T., "Within-Plasma Magnetic Insulation," <u>Soviet Journal of Plasma Physics</u>, Vol. 7, No. 1, January/February 1981, pp. 46-48. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 7, No. 1, January/February 1981, pp. 82-85.)
- Komel'kov, V. S., Kuznetsov, A. P., Perebeinos, V. V., Pleshanov, A. S. and Solomonov, M. T., "Dynamics of a Plasma Shell with an Outside Current," <u>Journal of Applied Mechanics and Technical Physics</u>, Vol. 23, No. 2, September 1982, pp. 162-167. (English translation of Russian original in <u>PMTF--Zhurnal Prikladnoi Mekhaniki i</u>
 Tekhnicheskoi Fiziki, Vol. 23, No. 2, March/April 1982, pp. 5-10.)
- Komel'kov, V. S., Kuznetsov, A. P. and Pleshanov, A. S., "Motion of a Current-Carrying Plasma Shell in a Rarefaction Wave," <u>Journal of Applied Mechanics and Technical Physics</u>, Vol. 26, No. 1, January/February 1985, pp. 10-15. (English translation of Russian original in <u>PMTF--Zhurnal Prikladnoi Mekhaniki i Tekhnicheskoi Fiziki</u>, Vol. 26, No. 1, January/February 1985, pp. 13-18.)
- Kondoh, Y., Shimoda, K. and Hirano, K., "Measurements of Energetic Particle Beams in a Plasma Focus," <u>Japanese Journal of Applied</u>
 Physics, Vol. 20, No. 2, February 1981, pp. 393-400.

- Koopman, D. W., "Performance Studies with an Electrically Driven Shock
 Tube," <u>The Physics of Fluids</u>, Vol. 7, No. 10, October 1964, pp.
 1651-1657.
- Korsun, A. G., "Current Limiting by Self Magnetic Field in a Plasma Accelerator," <u>Soviet Physics--Technical Physics</u>, Vol. 19, No. 1, July 1974, pp. 124-126. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 44, No. 1, January 1974, pp. 202-206.)
- Kovrov, P. E., Morozov, A. I., Tokarev, L. G. and Shchepkin, G. Ya., "Magnetic Field Distribution in a Coaxial Plasma Injector," <u>Soviet</u> <u>Physics--Doklady</u>, Vol. 12, No. 2, August 1967, pp. 155-157. (English translation of Russian original in <u>Doklady Akademii Nauk SSSR</u>, Vol. 172, No. 6, February 1967, pp. 1305-1308.)
- Kozlov, N. P., Leskov, L. V., Protasov, Yu. S., and Khvesyuk, V. I., "Experimental Study of the Plasma Focus in an Erosion-Plasma Accelerator. I," <u>Soviet Physics--Technical Physics</u>, Vol. 18, No. 4, October 1973, pp. 466-470. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 43, No. 4, April 1973, pp. 740-748.)
- Kozlov, N. P., Alekseev, V. A., Protasov, Yu. S. and Rubinov, A. N., "High-Power Ultraviolet Paraterphenyl-Solution Laser Excited by the Plasma Focus of a Magnetoplasma Compressor," <u>JETP Letters</u>, Vol. 20, No. 11, 5 December 1974, pp. 331-332. (English translation of

- Russian original in <u>Zhurnal Éksperimental'noi i Teoreticheskoi</u>

 <u>Fiziki, Pis'ma v Redaktsiiu</u>, Vol. 20, No. 11, 5 December 1974, pp. 716-718.)
- Kozlov, N. P., Leskov, L. V., Protasov, Yu. S., Khvesyuk, V. I. and Yaminskii, V. V., "Measurement of the M Number of Plasma Jets" <u>High</u> <u>Temperature</u>, March 1975, pp. 609-615. (English translation of Russian original in <u>Teplofizika Vysokikh Temperatur</u>, Vol. 12, No. 4, July/August 1974, pp. 609-615.)
- Kozlov, N. P. and Protasov, Yu. S., "Experimental Study of Plasma Focusing in Erosion Plasma Accelerators. V. Mechanism of Plasma Focusing in a Magnetoplasma Compressor," <u>Soviet Physics—Technical</u> <u>Physics</u>, Vol. 27, No. 8, August 1982, pp. 935—944. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 52, No. 8, August 1982, pp. 1526—1541.)
- Krauz, V. I., Salukvadze, R. G. and Khautiev, E. Yu., "Plasma Focus

 Studies at Energies up to 250 kJ," in <u>Europhysics Conference</u>

 <u>Abstracts of the Tenth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981</u>, Vol. 5H, pp.

 591-594, Merz, W. J. (series ed.), Thomas, G. (managing ed.),

 European Physical Society, Geneva, Switzerland, 1982.
- Krauz, V. 1., Salukvadze, R. G. and Khautiev, É. Yu., "Energy Spectra of Ion Beams Produced at a Plasma Focus," <u>Soviet Journal of Plasma</u>

 <u>Physics</u>, Vol. 11, No. 3, March 1985, pp. 163-166. (English

- translation of Russian original in <u>Fizika Plasmy</u>, Vol. 11, No. 3, March 1985, pp. 281-287.)
- Kravarik, J., Kubes, P. and Hruska, J., "Development of Current Sheath on Output of Coaxial Gun," in <u>Proceedings of the Eleventh</u>

 <u>Czechoslovak Seminar on Plasma Physics and Technology, Zvikov,</u>

 <u>Czechoslovakia, 7-9 October 1981</u>, Report No. IPPCZ-244, pp. 101-102,

 Ceskoslovenska Akademie Ved, Prague, Czechoslovakia, October 1981.
- Kravarik, J., Kubes, P., Hruska, J. and Bacilek, J., "Schlieren Method Diagnostic of Plasma Compression in Front of Coaxial Gun," in Proceedings of the Twelfth Czechoslovak Seminar on Plasma Physics and Technology, Liblice, Czechoslovakia, 21-25 March 1983, Report No. IPPCZ-249, pp. 270-271, Ceskoslovenska Akademie Ved, Prague, Czechoslovakia, March 1983.
- Krompholz, H., Michel, L., Schonbach, K. H., and Fischer, H., "Neutron-, Ion- and Electron-Energy-Spectra in a 1 kJ Plasma Focus," Report No. EOA RD-TR-75-21, European Office of Aerospace Research and Development, London, England, October 1975.
- Krompholz, H., Michel, L., Schonbach, K. H. and Fischer, H., "Neutron-, Ion-, and Electron-Energy Spectra in a 1 kJ Plasma Focus," <u>Applied Physics</u>, Vol. 13, No. 1, January 1977, pp. 29-35.
- Krompholz, H., Grimm, E., Ruhl, F., Schonbach, K. and Herziger, G.,
 "Periodical Modulations in High-Energy Ion Spectra in the Plasma

- Focus Device," <u>Physics Letters</u>, Vol. 76A, No. 3/4, 31 March 1980, pp. 255-256.
- Krompholz, H., Neff, W., Schonbach, K. and Herziger, G., "Strong

 Subnanosecond Field Variations in the Dense Plasma Focus," Physics

 Letters, Vol. 76A, No. 5/6, 14 April 1980, pp. 388-390.
- Krompholz, H., Neff, W., Ruhl, F., Schönbach, K. and Herziger, G.,

 "Formation of the Plasma Layer in a Plasma Focus Device," Physics

 Letters, Vol. 77A, No. 4, 26 May 1980, pp. 246-248.
- Krompholz, H., Ruhl, F., Schneider, W., Schonbach, K. and Herziger, G.,

 "A Scaling Law for Plasma Focus Devices," Physics Letters, Vol. 82A,

 No. 2, 9 March 1981, pp. 82-84.
- Kruglyakov, E. P., Malinovskii, V. K. and Nesterikhin, Yu. E., "Plasma Parameters for a Coaxial Injector," <u>Magnetohydrodynamics</u>, Vol. 1, No. 1, January/March 1965, pp. 59-63. (English translation of Russian original in <u>Magnitnaya Gidrodinamika</u>, Vol. 1, No. 1, 1965, pp. 80-86.)
- Kubes, P., Hruska, J. and Bacilek, J., "Relaxation in the Accelerated Plasma Cluster," in <u>Proceedings of the Ninth Czechoslovak Seminar on Plasma Physics and Technology, Liblice, Czechoslovakia, 31 March--2 April 1976</u>, Report No. IPPCZ-213, pp. 41-42, Ceskoslovenka Akademie Ved, Prague, Czechoslovakia, May 1976.

- Kubes, P., Hruska, J. and Bacilek, J., "Spectroscopic Structure and Mass Determination of Plasma Cluster Accelerated by a Coaxial Gun,"

 Czechoslovak Journal of Physics B, Vol. 27, No. 9, September 1977,

 pp. 1022-1026.
- Kubes, P., Hruska, J. and Bacilek, J., "Decay of Plasma Cluster

 Accelerated by Coaxial Gun," <u>Czechoslovak Journal of Physics B</u>, Vol.

 28, No. 2, February 1978, pp. 161-164.
- Kubo, H., Kawashima, N. and Itoh, T., "Simulation Experiment on the Tail of Type 1 Comets," <u>Journal of Geophysical Research</u>, Vol. 75, No. 10, 1 April 1970, pp. 1937-1939.
- Kubo, H., Kawashima, N. and Itoh, T., "Interaction of Plasma Streams with a Neutral Gas Cloud," in <u>Dynamics of Ionized Gases</u>, Proceedings of the International Symposium on Dynamics of Ionized Gases sponsored by the International Union of Theoretical and Applied Mechanics, Tokyo, Japan, 13-17 September 1971, pp. 509-522, Lighthill, M. J., Imai, I. and Sato, H. (eds.), John Wiley & Sons, New York City, New York, 1973.
- Kuciński, J. and Jerzykiewicz, A., "Preliminary Investigation of High-Repetition Rate Plasma Neutron Source (PGN)," <u>Journal of Technical</u> Physics, Vol. 24, No. 3, March 1983, pp. 385-394.
- Kuciński, J. and Nawrot, W., "Time Resolved Neutron Pulses Emitted from PF-360 Device," in Proceedings of the Fourth International Workshop

- on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September 1985, pp. 15-18, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Kucinski, J. and Jerzykiewicz, A., "PGN--the 8 kJ Plasma-Focus Device with Elevated Repetition Rate as a Plasma Neutron and Ion Source," in Proceedings of the Fourth International Workshop on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September 1985, pp. 47-50, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Kulandin, A. A., Kazarnovskiy, D. M. and Khorozhavin, A. V., "Theory of a Pulsed Plasmoid Accelerator," Report No. FTD-HT-23-517-72, Foreign Technology Division, Wright-Patterson AFB, 11 August 1972. (English translation of Russian original in <u>Magnitnaya Gidrodinamika</u>, Vol. 6, No. 2, April/June 1970, pp. 139-141.)
- Kuliński, S., Nowikowski, J. and Suckewer, S., "Use of a Monochrometer for the Velocity and Temperature Measurements in a Coaxial Plasma Accelerator," Report No. 781/XVIII/PP, Polish Academy of Sciences, Warsaw, Poland, 1967.
- Kulinski, S., "Focusing Properties of Some Static Nonuniform Electric and Electric and Magnetic Fields," Report No. INR-845/7/PL, Polish Academy of Sciences, Warsaw, Poland, 1967.

- Kulinski, S., Nowikowski, J. and Suckewer, S., "Use of a Monochrometer for the Velocity and Temperature Measurements in a Coaxial Plasma Accelerator," Plasma Physics, Vol. 10, No. 4, April 1968, p. 461 (abstract only; included in article by) Lehnert, B., "Second European Conference on Controlled Fusion and Plasma Physics," Plasma Physics, Vol. 10, No. 4, April 1968, pp. 421-476.
- Kulinski, S., "Focusing Properties of Some Static Non-Uniform Electric and Magnetic Fields," <u>Plasma Physics</u>, Vol. 10, No. 6, May 1968, pp. 515-526.
- Kunieda, S., Kawashima, N. and Mori, S., "Electron Measurement of a Plasma from a Plasma Gun by Means of a Triple Probe," <u>Plasma Physics</u>

 (Journal of Nuclear Energy, Part C), Vol. 7, No. 2, 1965, pp. 175177.
- Kuriki, K., Forrest, M. J., Morgan, P. D. and Peacock, N. J., "Experiments on Turbulence in Plasma Focus," in <u>Pulsed High Beta</u> <u>Plasmas</u>, Proceedings of the Third Topical Conference on Pulsed High Beta Plasmas, UKAEA Culham Laboratory, Abingdon, Oxfordshire UK, 9-12 September 1975, pp. 395-399, Evans, D. E. (ed.), Pergamon Press, Oxford, England, 1976.
- Kurtmullaev, R. Kh., Nesterikhin, Yu. E. and Ponomarenko, A. G., "Study of the Structure of a Plasma Stria Created by a Conical Source,"

 <u>High Temperature</u>, Vol. 2, No. 5, September/October 1964, pp. 599-608. (English translation of Russian original in Teplofizika

- Vysokikh Temperatur, Vol. 2, No. 5, September/October 1964, pp. 661-671.)
- Kvartskhava, I. F., Meladze, R. D. and Suladze, K. V., "Experiments on Electrodynamic Acceleration of Plasmas," <u>Soviet Physics--Technical</u> <u>Physics</u>, Vol. 5, No. 3, September 1960, pp. 266-273. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 30, No. 3, March 1960, pp. 289-296.)
- Kvartskhava, I. F. and Khautiev, E. Yu., "Investigation of Plasma Focus in Coaxial Accelerator with Pre-ionization of Gas," Report No. FTD-HT-23-1088-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 3 October 1974. (English translation of the Russian original in Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye, pp. 247-250, Moscow, USSR, 1973.)
- Kvartskhava, I. F., Meladze, R. D., Reshetnyak, N. G., Khautiev, E. Yu. and Matveev, Yu. V., "Analysis of the Self-Pulsing Operation of a Plasma Gun by Circuit Theory," <u>Soviet Physics--Technical Physics</u>, Vol. 20, No. 11, November 1975, pp. 1507-1509. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 45, No. 11, November 1975, pp. 2419-2421.)
- Kvartskhava, I. F., Khautiev, É. Yu. and Nindidze, M. L., "Mechanism for Hard X-Ray and Neutron Emission of Plasma Focus," <u>Soviet Journal of Plasma Physics</u>, Vol. 2, No. 1, January/February 1976, pp. 22-23.

- (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 2, No. 1, January/February 1976, pp. 40-43.)
- Kvartskhava, I. F., Reshetnyak, N. G., Zhukov, N. N., Meladze, R. D. and Khautiev, E. Yu., "Modulated Plasma Acceleration in Electrodynamic Accelerators," <u>Soviet Physics--Technical Physics</u>, Vol. 21, No. 5, May 1976, pp. 570-574. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 46, No. 5, May 1976, pp. 974-980.)
- Kvartskhava, I. F., Meladze, R. D., Khautiev, E. Yu., Reshetnyak, N. G. and Suladze, K. V., "The Impedance of an Electrodynamic, Coaxial Plasma Accelerator," <u>Journal of Engineering Physics</u>, Vol. 43, No. 5, November 1982, pp. 1296-1299. (English translation of Russian original in <u>Inzhernerno-Fizicheskii Zhurnal</u>, Vol. 43, No. 5, November 1982, pp. 837-841.)
- Kwek, K. H., Tou, T. Y., Yong, Y. C., Ali, J. and Lee, S., "Numerical Design of the UNU/ICTP Plasma Focus," in <u>Second Tropical College on Applied Physics: Laser and Plasma Technology</u>, University of Malaya, Malaysia, 17 March--5 April 1986, pp. 393-401, Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Kwek, K. H. and Chen, Y. H., "Holographic Interferometric Measurements of Electron Densities in a Plasma Focus," in Second Tropical College

- on Applied Physics: Laser and Plasma Technology, University of Malaya, Malaysia, 17 March--5 April 1986, pp. 502-508, Lee , Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Kwek, K. H., Tou, T. Y. and Lee, S., "A TEA Nitrogen Laser for Optical Diagnostics of the Plasma Focus," in <u>Small Scale Physics</u>

 <u>Experiments</u>, Proceedings of Symposium on Small Scale Laboratory

 Plasma Experiments, Spring College on Plasma Physics, 25 May--19

 June 1987, pp. 55-65, Lee, S. and Sakanaka, P. H. (eds.), World

 Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Kwek, K. H. and Lee, S., "Schlieren Photography of the Plasma Focus," in <u>Laser and Plasma Technology</u>, Proceedings of the Third Tropical College on Applied Physics, University of Malaya, Kuala Lumpur, Malaysia, 30 May--18 June 1988, pp. 476-483, Wong, C. S., Lee, S., Tan, B. C., Chew, A. C., Low, K. S. and Moo, S. P. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1990.
- Larson, A. V., Gooding, T. J., Hayworth, B. R. and Ashby, D. E. T. F.,

 "An Energy Inventory in a Coaxial Plasma Accelerator Driven by a

 Pulse Line Energy Source," <u>AIAA Journal</u>, Vol. 3, No. 5, May 1965,

 pp. 977-979.
- Larson, A. V., Liebing, L. and Dethlefsen, R., "Experimental and Evaluation Studies of a Coaxial Plasma Gun Accelerator," Report Nos.

- NASA CR-54710 and GDC-DBE-65-026, General Dynamics/Convair Division, San Diego, California, July 1966.
- Lee, C. M., "Correlation of Neutron Production to X Rays and Visible
 Light in a Dense Plasma Focus," Report No. GEP/PH/71-12, Master's
 thesis, Air Force Institute of Technology, Wright-Patterson AFB,
 Ohio, March 1971.
- Lee, J., "Interaction of a Plasma Beam with a Magnetic Barrier," PhD dissertation, Case Western Reserve University, Cleveland, Ohio, June 1973.
- Lee, J. H., Loebbaka, D. S. and Roos, C. E., "Hard X-Ray Spectrum of a Plasma Focus," Plasma Physics, Vol. 13, No. 4, April 1971, pp. 347-349.
- Lee, J. H., Shomo, L. P., Williams, M. D. and Hermansdorfer, H.,

 "Neutron Production Mechanism in a Plasma Focus," The Physics of
 Fluids, Vol. 14, No. 10, October 1971, pp. 2217-2223.
- Lee, J. H., Shomo, L. P. and Kim, K. H., "Anisotropy of the Neutron Fluence from a Plasma Focus," <u>The Physics of Fluids</u>, Vol. 15, No. 12, December 1972, pp. 2433-2438.
- Lee, J. H., Roos, C. E. and Barach, J. P., "Investigation of High Energy Radiation from a Plasma Focus," Report No. NASA-CR-146851,

- National Aeronautical and Space Administration, Langley Research Center, Hampton, Virginia, 1975.
- Lee, J. H., McFarland, D. R. and Hohl, F., "Dense Plasma Focus

 Production in a Hypocycloidal Pinch," Report No. NASA TN D-8116,

 National Aeronautics and Space Administration, Washington, D. C.,

 December 1975.
- Lee, J. H., McFarland, D. R. and Hohl, F., "Production of Dense Plasmas in a Hypocycloidal Pinch Apparatus," <u>The Physics of Fluids</u>, Vol. 20, No. 2, February 1977, pp. 313-321.
- Lee, J. H., Hohl, F. and McFarland, D. R., "Fission and Activation of Uranium by Fusion-Plasma Neutrons," Atomkernenergie, Vol. 32, No. 1, January 1978, pp. 76-84.
- Lee, J. H., McFarland, D. R. and Harries, W. L., "Investigation of a Staged Plasma-Focus Apparatus," Plasma Physics, Vol. 20, No. 10, October 1978, pp. 1025-1038.
- Lee, J. H., McFarland, D. R. and Hohl, F., "Ultraviolet Laser Excitation Source," Applied Optics, Vol. 19, No. 19, 1 October 1980, pp. 3343-3348.
- Lee, J. H., "Production and Diagnostics of Dense Nuclear Plasmas,"

 Report No. NASA-CR-162656, National Aeronautical and Space

 Administration, Langley Research Center, Hampton, Virginia, 1980.

- Lee, S., Chen, Y. H., Chow, S. P., Tan, B. C., Teh, H. H. and Thong, S. P., "High-Speed Photography of a Plasma Focus," <u>International</u>

 Journal of Electronics, Vol. 33, No. 1, July 1972, pp. 85-90.
- Lee, S. and Chen, Y. H., "The Plasma Focus--A Radial Trajectory

 Computation" in Proceedings of the Twelfth International Conference
 on Phenomena in Ionized Gases, Eindhoven, the Netherlands, 18-22

 August 1975, Part I, p. 353, Holsher, J. G. A. and Schram, D. C.

 (eds.), American Elsevier Publishing Company, Inc., New York City,
 New York, 1975.
- Lee, S. and Tan, T. H., "Dependence of Focus Intensity on Mass and Field Distribution," in <u>Proceedings of the Seventh European Conference on Controlled Fusion and Plasma Physics, Lausanne, Switzerland, 1-5 September 1975</u>, Vol. I, p. 65, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, 1975.
- Lee, S., "Radius Ratios of Argon Pinches," <u>Australian Journal of</u>
 Physics, Vol. 36, 1983, pp. 891-895.
- Lee, S., "Application of Energy Balance to Compute Plasma Pinch Ratios,"

 Journal of Applied Physics, Vol. 64, No. 6, June 1983, pp. 36033605.
- Lee, S., "Energy Balance and the Radius of Electromagnetically Pinched Plasma Column," <u>Plasma Physics</u>, Vol. 25, No. 5, May 1983, pp. 571-576.

- Lee, S., "Plasma Focus Model Yielding Trajectory and Structure," in Radiation in Plasmas, Proceedings of the 1983 College on Plasma Physics, International Centre for Theoretical Physics, Trieste, Italy, Vol. II, pp. 967-977, McNamara, B. (ed.), World Scientific Publishing Company Pte Limited, Singapore, 1984.
- Lee, S., "A New Theory for the Fast Compressional Pinch," in <u>Radiation in Plasmas</u>, Proceedings of the 1983 College on Plasma Physics,
 International Centre for Theoretical Physics, Trieste, Italy, Vol.
 II, pp. 978-987, McNamara, B. (ed.), World Scientific Publishing
 Company Pte Limited, Singapore, 1984.
- Lee, S., Tou, T. Y., Moo, S. P., Eissa, M. A., Gholap, A. V., Kwek, K. H., Mulyodrono, S., Smith, A. J., Suryadi, Usada, W. and Zakaullah, M., "A Simple Facility for the Teaching of Plasma Dynamics and Plasma Nuclear Fusion," American Journal of Physics, Vol. 56, No. 1, January 1988, pp. 62-68.
- Lee, S., "Plasma Research at the University of Malaya," in <u>Second</u>

 <u>Tropical College on Applied Physics: Laser and Plasma Technology</u>,

 University of Malaya, Malaysia, 17 March--5 April 1986, pp. 278287, Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S.,

 Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing

 Company, Inc., Teaneck, New Jersey, 1988.
- Lee, S., "Sharing of Fusion Related Technology among Developing

 Countries," in Energy Independence Conference on Fusion Energy and

- Plasma Physics, Energy Independence Conference on Fusion Energy and Plasma Physics, Rio de Janeiro, Brazil, 17-21 August 1987, pp. 754-781, Sakanaka, P. H. (ed.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Lehnert, B., "Second European Conference on Controlled Fusion and Plasma Physics," Plasma Physics, Vol. 10, No. 4, April 1968, pp. 421-476.
- Len, L. K., "The Snowplow and Deflagration Modes of Operation in Coaxial Plasma Guns," PhD dissertation, University of New Mexico, Albuquerque, New Mexico, August 1983.
- Leskov, L. V., Malakhov, A. M. and Ragimov, F. Ya., "Investigation of the Broadening of Spectral Lines in a Pulse Plasma Accelerator,"

 <u>Journal of Applied Spectroscopy</u>, Vol. 18, No. 5, May 1973, pp. 573-575. (English translation of Russian original in <u>Zhurnal Prikladnoi Spektroskopii</u>, Vol. 18, No. 5, May 1973, pp. 785-788.)
- Leskov, L. V. and Malakhov, A. M., "Study of Quasi-Stationary Plasma Accelerators," Report No. FTD-HT-23-1082-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 4 October 1974. (English translation of the Russian original in <u>Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye</u>, pp. 221-224, Moscow, USSR, 1973.)
- Lie, T. N., Ali, A. W., McLean, E. A. and Kolb, A. C., "Plasma State in a Coaxial Accelerator," <u>The Physics of Fluids</u>, Vol. 10, No. 7, July 1967, pp. 1545-1552.

- Lie, T. N., Rhee, M. J. and Chang, C. C., "Pre-ionization Phenomena in Pulsed Plasma Accelerator," in <u>Proceedings of the APS Topical</u>

 <u>Conference on Pulsed High-Density Plasmas, Los Alamos Scientific</u>

 <u>Laboratory, Los Alamos, New Mexico, 19-22 September 1967</u>, Report No.

 LA-3770, pp. E5-1-E5-4, Los Alamos Scientific Laboratory, Los

 Alamos, New Mexico, 29 September 1967.
- Lie, T. N., "Current-Sheet Velocity in a Coaxial Plasma Accelerator,"

 AIAA Journal, Vol. 8, No. 2, February 1970, pp. 206-210.
- Lindberg, L. and Jacobsen, C. T., "Studies of Plasma Expelled from a Coaxial Plasma Gun," <u>The Physics of Fluids</u>, Vol. 7, No. 11, Part 2, November 1964, pp. S44-S50.
- Lindemuth, I. R. and Freeman, B. L., "Shock Dynamics and Neutron

 Production in an Explosive Generator Driven Dense Plasma Focus,"

 Applied Physics Letters, Vol. 40, No. 6, 15 March 1982, pp. 462-465.
- Linhart, J. G., "A Simplified Analysis of the Dynamics of Plasma Guns,"

 Nuclear Fusion, Vol. 1, No. 2, March 1961, pp. 78-81.
- Little, E. M., Marshall, J., Quinn, W. E. and Stratton, T. F., "Injected Magnetic Compression Experiment," <u>The Physics of Fluids</u>. Vol. 4, No. 12, December 1961, pp. 1570-1571.
- Litvak, A. K. and Pankratov, V. G., "Calculating Plasma Flow in Accelerator in Two-Dimensional, Two-Fluid Approximation," Report No.

- FTD-HT-23-1091-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 22 October 1974. (English translation of Russian original in Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye, pp. 257-261, Moscow, USSR, 1973.)
- Long, J. W., Peacock, N. J., Wilcock, P. D. and Speer, R. J., "The

 Formation and Break-Up of the Pinch in Plasma Focus," in <u>Proceedings</u>

 of the APS Topical Conference on Pulsed High-Density Plasmas, Los

 Alamos Scientific Laboratory, Los Alamos, New Mexico, 19-22

 September 1967, Report No. LA-3770, pp. C5-1-C5-6, Los Alamos

 Scientific Laboratory, Los Alamos, New Mexico, 29 September 1967.
- Long, J. W., Peacock, N. J., Speer, R. J. and Wilcock, P. D., "Electro-Magnetic Emission from Plasma Focus," <u>Plasma Physics</u>, Vol. 10, No. 4, April 1968, p. 465 (abstract only; included in article by)

 Lehnert, B., "Second European Conference on Controlled Fusion and Plasma Physics," <u>Plasma Physics</u>, Vol. 10, No. 4, April 1968, pp. 421-476.
- Lovberg, R., "Inference of Plasma Parameters from Measurement of E and B Fields in a Coaxial Accelerator," <u>The Physics of Fluids</u>, Vol. 7, No. 11, Part 2, November 1964, pp. S57-S61.
- Lovberg, R. H., "Schlieren Photography of a Coaxial Accelerator

 Discharge," The Physics of Fluids, Vol. 8, No. 1, January 1965, pp. 177-185.

- Luk'yanov, S. Yu., Podgornyi, I. M. and Chuvatin, S. A., "Electrodynamic Acceleration of Plasmoids. III (Coaxial System)," Soviet Physics—

 Technical Physics, Vol. 6, No. 9, March 1962, pp. 750-754. (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 31, No. 9, September 1961, pp. 1026-1032.)
- Lyashenko, V. N., Skvortsov, Yu. V., Strunnikov, V. M. and Tserevitinov, S. S., "Transport of Plasma Blobs Magnetized at the Entrance Gradient in a Profiled Magnetic Field," <u>Soviet Physics--JETP</u>, Vol. 57, No. 1, January 1983, pp. 41-46. (English translation of Russian original in <u>Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki</u>, Vol. 84, No. 1, January 1983, pp. 71-79.)
- Maclatchy, C. S. and Barnard, A. J., "The Formative Phase of a Low Pressure, High Voltage Z Pinch," <u>Canadian Journal of Physics</u>, Vol. 50, No. 20, 15 October 1972, pp. 2475-2481.
- Maisonnier, Ch., Samuelli, M., Linhart, J. G. and Gourlan, C.,

 "Experiments with Imploding Plasma Liners," in <u>Proceedings of the</u>

 Third International Conference on Plasma Physics and Controlled

 Nuclear Fusion, Novosibirsk, USSR, 1-7 August 1968, Vol. II, IAEA
 CN-24, International Atomic Energy Agency, Vienna, Austria, March

 1969; Nuclear Fusion supplement 1969, pp. 77-86.
- Maisonnier, Ch., Samuelli, M., Robouch, B. and Pecorella, F., "Scaling

 Laws of Plasma Focuses," in <u>Contributions to the Fourth European</u>

 Conference on Controlled Fusion and Plasma Physics, Rome, Italy, 31

- <u>August--4 September 1970</u>, p. 117, Comitato Nazionale per l'Energia Nucleare, Rome, Italy, 1970.
- Maisonnier, Ch., Gourlan, C., Luzzi, G., Papagno, L., Pecorella, F., Rager, J. P., Robouch, B. V. and Samuelli, M., "Structure of the Dense Plasma Focus, Part II: Neutron Measurements and Phenomenological Description," in <u>Proceedings of the Fourth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Madison, Wisconsin, 17-23 June 1971</u>, Vol. I, IAEA-CN-28, International Atomic Energy Agency, Vienna, Austria, October 1971; Nuclear Fusion supplement 1971, pp. 523-532.
- Maisonnier, Ch., Pecorella, F., Rager, J. P. and Samuelli, M., "A Model for the Dense Plasma Focus," in <u>Proceedings of the Second Topical Conference on Pulsed High-Beta Plasmas, Garching, near Munich, Germany, 3-6 July 1972</u>, Report No. IPP 1/127, pp. 171-174, Lotz, W. (ed.), Max Planck Institut für Plasmaphysik, Garching, near Munich, Germany, July 1972.
- Maisonnier, Ch., Pecorella, F., Rager, J. P. and Samuelli, M., "Recent Progress in Research on Plasma Focus," in <u>Proceedings of the Fifth European Conference on Controlled Fusion and Plasma Physics, Grenoble, France, 21-25 August 1972</u>, Vol. 2, pp. 183-194, Association EURATOM--Commissariat à l'Énergie Atomique, Centre d'Etudes Nucleaires de Grenoble, Grenoble, France, 1972.

- Maisonnier, Ch., Pecorella, F., Rager, J. P., Samuelli, M., Strangio, C. and Messina, A., "Comparative Studies of Plasma Focus Devices," in Proceedings of the Fifth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Tokyo, Japan, 11-15 November 1974, Vol. III, IAEA-CN-33, International Atomic Energy Agency, Vienna, Austria, October 1975; Nuclear Fusion supplement 1975, pp. 99-108.
- Maisonnier, C., Rager, J. P., Gourlan, C., Galanti, M. and Morgan, P.

 D., "Preliminary Results of the 1-MJ Plasma Focus Experiment," in

 Proceedings of the Sixth International Conference on Plasma Physics

 and Controlled Fusion Research, Berchtesgaden, Federal Republic of

 Germany, 6-13 October 1976, Vol. III, IAEA-CN-35, International

 Atomic Energy Agency, Vienna, Austria, May 1977; Nuclear Fusion

 supplement 1977, pp. 447-453.
- Maisonnier, Ch. and Rager, J. P., "Generation of Ion Beams in the

 Frascati Plasma Focus Devices," in <u>Proceedings of the Third</u>

 <u>International Topical Conference on High Power Electron and Ion Beam</u>

 <u>Research and Technology, Novosibirsk, USSR, 3-6 July 1979</u>, Vol. I,

 pp. 233-249, Institute of Nuclear Physics, Novosibirsk, USSR, 1979.
- Marshall, J., "Acceleration of Plasma into Vacuum," in <u>Proceedings of</u>
 the Second United Nations International Conference on the Peaceful
 Uses of Atomic Energy, Geneva, Switzerland, 1-13 September 1958,
 Vol. 31, Theoretical and Experimental Aspects of Controlled Nuclear
 Fusion, pp. 341-347, United Nations, Geneva, Switzerland, 1958.

- Marshall, J., "Performance of a Hydromagnetic Plasma Gun," <u>The Physics</u> of Fluids, Vol. 3, No. 1, January/February 1960, pp. 134-135.
- Marshall, J., "Hydromagnetic Plasma Gun," in <u>Plasma Acceleration</u>, Fourth Lockheed Symposium on Magnetohydrodynamics, Palo Alto, California, 2 December 1959, pp. 60-72, Kash, S. W. (ed.), Stanford University Press, Stanford, California, 1960.
- Marshall, J. and Stratton, T. F., "The Collision of Two Plasmas,"

 Nuclear Fusion 1962 supplement, Part 2, 1962, pp. 663-674.
- Marshall, J. and Henins, I., "Fast Plasma from a Coaxial Gun," in

 Proceedings of the Second International Conference on Plasma Physics

 and Controlled Nuclear Fusion Research, Culham, England, 6-10

 September 1965, Vol. II, IAEA-CN-21, International Atomic Energy

 Agency, Vienna, Austria, April 1966; Nuclear Fusion supplement 1966,

 pp. 449-461.
- Marshall, J., "Coaxial Plasma Guns as Injectors of High Beta Linear Theta Pinches," in <u>Proceedings of the High Beta Workshop, Los Alamos, New Mexico, 28 July--1 August 1975</u>, Report No. ERDA-76/108, pp. 470-480, Oktay, E. (ed.), Energy Research and Development Administration, Washington, D. C., 1976.
- Marshall, J., "Fueling by Coaxial Plasma Guns," in <u>Proceedings of the</u>

 Fusion Fueling Workshop, Princeton, New Jersey, 1-3 November 1977

- Report No. CONF-771129, pp. 2-5, U. S. Department of Energy, Washington, D. C., March 1978.
- Martin, C., Muller, K. G., Tuczek, H., Bieger, W., Gresser, H. and Richter, F., "High-Current Plasma Accelerator for the Investigation of Plasma Wall Interaction," <u>Journal of Applied Physics</u>, Vol. 48, No. 9, September 1977, pp. 3723-3726.
- Masoud, M. M. and Soliman, H. M., "Co-Axial Electrode Gun Characteristics," Report No. AREAEE-268, Atomic Energy Establishment, Cairo, Egypt, 1981.
- Masoud, M. M., Soliman, H. M. and El-Khalafawy, T. A., "Plasma Sheath and Focus Dynamics," in Proceedings of the 17th International
 Conference on Phenomena in Ionized Gases, Budapest, Hungary, 8-12
 July 1985, Vol. 2, pp. 963-965, Bakos, J. S. and Sorlei, Z. (eds.)
- Masuda, M., Tanaka, Y. and Okuda, T., "RF Power Absorption of a Plasma Produced by a Coaxial Plasma Gun," <u>Journal of Physics D: Applied</u>
 Physics, Vol. 5, No. 9, September 1972, pp. 1558-1560.
- Mather, J. W., "Observations on the Modes of Acceleration in a Coaxial Gun," <u>Bulletin of the American Physical Society</u>, series II, Vol. 8, No. 2, 28 February 1963, p. 177.

- Mather, J. W., "Investigation of the High-Energy Acceleration Mode in the Coaxial Gun," <u>The Physics of Fluids</u>, Vol. 7, No. 11, Part 2, November 1964, pp. S28-S34.
- Mather, J. W., "Formation of a High-Density Deuterium Plasma Focus," The Physics of Fluids, Vol. 8, No. 2, February 1965, pp. 366-377.
- Mather, J. W., "High Density Deuterium Plasma," in <u>Proceedings of the Second Conference on Plasma Physics and Controlled Nuclear Fusion Research, Culham, England, 6-10 September 1965</u>, Vol. II, IAEA-CN-21, International Atomic Energy Agency, Vienna, Austria, April 1966;

 <u>Nuclear Fusion</u> supplement 1966, pp. 389-404.
- Mather, J. W. and Williams, A. H., "Image Converter Observations of the Development of the Dense Plasma Focus Discharge," The Physics of Pluids, Vol. 9, No. 10, October 1966, pp. 2080-2082.
- Mather, J. W., Bottoms, P. J. and Williams, A. H., "Some Characteristics of the Dense Plasma Focus," in <u>Proceedings of the APS Topical</u>

 <u>Conference on Pulsed High-Density Plasmas, Los Alamos Scientific</u>

 <u>Laboratory, Los Alamos, New Mexico, 19-22 September 1967</u>, Report No.

 LA-3770, pp. C1-1-C1-5, Los Alamos Scientific Laboratory, Los

 Alamos, New Mexico, 29 September 1967.
- Mather, J. W. and Bottoms, P. J., "Characteristics of the Dense Plasma Focus Discharge," <u>The Physics of Fluids</u>, Vol. 11, No. 3, March 1968, pp. 611-618.

- Mather, J. W., Bottoms, P. J., Carpenter, J. P., Williams, A. H. and Ware, K. D., "Stability of the Dense Plasma Focus," <u>The Physics of Fluids</u>, Vol. 12, No. 11, November 1969, pp. 2343-2347.
- Mather, J. W., "Dense Plasma Focus," chapter 15, pp. 187-249, in Methods
 of Experimental Physics, Vol. 9B, Lovberg, R. H. and Griem, H. R.
 (eds.), Academic Press, New York City, New York, 1971.
- Mather, J. W., Bottoms, P. J., Carpenter, J. P., Ware, K. D. and Williams, A. H., "Recent Studies of Dense Plasma Focus," in Proceedings of the Fourth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Madison, Wisconsin, 17-23

 June 1971, Vol. I, IAEA-CN-28, International Atomic Energy Agency, Vienna, Austria, October 1971; Nuclear Fusion supplement 1971, pp. 561-570.
- Mather, J. W. and Ahluwahlia, H. S., "The Geomagnetic Field--An Explanation for the Microturbulence in Coaxial Gun Plasmas," IEEE Transactions on Plasma Science, Vol. PS-16, No. 1, February 1988, pp. 56-57.
- Matt, D. R. and Scott, F. R., "Optical Measurements of the Degree of Turbulence of a Gun Plasma," <u>The Physics of Fluids</u>, Vol. 15, No. 6.

 June 1972, pp. 1047-1050.
- Matveev, Yu. V. and Salukvadze, R. G., "Mechanism for Generation of Nonequilibrium Particles in Dynamical Z-Pinches," in Europhysics

Conference Abstracts of the Tenth European Conference on Controlled

Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981, Vol.

5G, Part I, pp. 329-332, Merz, W. J. (series ed.), Thomas, G.

(managing ed.), European Physical Society, Geneva, Switzerland,

1981.

- Mawardi, O. K., "Bounded Current Sheets," <u>The Physics of Fluids</u>, Vol. 7, No. 11, Part 2, November 1964, pp. S9-S16.
- Mawardi, O. K. and Block, R. B., "Instability of Electromagnetically

 Driven Shock," in <u>Proceedings of the Seventh International</u>

 <u>Conference on Phenomena in Ionized Gases, Beograd, Yugoslavia, 22-27</u>

 <u>August 1965</u>, Vol. II, pp. 806-809, Perović, B. and Tosić, D. (eds.),

 Gradevinska Knjiga Publishing House, Beograd, Yugoslavia, 1965.
- Mawardi, O. K., "Penetration of a Plasma Beam in a Magnetic Barrier,"

 Report No. AFCRL-71-0200, Air Force Cambridge Research Laboratories,

 Bedford, Massachusetts, 19 March 1971.
- Maxon, S. and Eddleman, J., "Two-Dimensional Magnetohydrodynamic Calculations of the Plasma Focus," <u>The Physics of Fluids</u>, Vol. 21, No. 10, October 1978, pp. 1856-1865.
- Maxon, S., "Theoretical View of the Plasma Focus," in <u>Proceedings of the International Conference on Plasma Physics</u>, Nagoya, Japan, 7-11

 April 1980 (Joint Conference of Fourth Kiev International Conference on Plasma Theory and Fourth International Conference on Waves and

- <u>Instabilities in Plasma</u>), Vol. I, p. 84, Fusion Research Association of Japan, Nagoya, Japan, 1980.
- Maxon, S., "Two-Dimensional Magnetohydrodynamic Calculations for a 5 MJ Plasma Focus," in <u>Energy Storage</u>, <u>Compression</u>, <u>and Switching</u>, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 387-406, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- McKenzie, J. F. and Varma, R. K., "The Interaction of a Moving Neutral

 Gas with a Stationary Magnetized Plasma," <u>Journal of Plasma Physics</u>,

 Vol. 25, Part 3, June 1981, pp. 491-497.
- Mendel, C. W., Jr., "Conical Z-Pinch Gun," <u>Journal of Applied Physics</u>, Vol. 42, No. 13, December 1971, pp. 5483-5491.
- Menon, S. V. G., Gunye, M. R. and Lawande, S. V., "Approximate

 Analytical Solutions for Imploding Shocks in a Plasma," Physical Review A, Vol. 21, No. 6, June 1980, pp. 2180-2183.
- Mertz, A. R., "Dense Plasma Focus X-Ray Emission: Studies and Application," Report No. GNE/PH/73-15, Master's thesis, Air Force Institute of Technology, Wright-Patterson AFB, Ohio, March 1973.
- Meskan, D. A., van Paassen, H. L. and Comisar, G. G., "Neutron and X-Ray Production in a Focused Z-Pinch," in Proceedings of the APS Topical

Conference on Pulsed High-Density Plasmas, Los Alamos Scientific

Laboratory, Los Alamos, New Mexico, 19-22 September 1967, Report No.

LA-3770, pp. C6-1-C6-7, Los Alamos Scientific Laboratory, Los

Alamos, New Mexico, 29 September 1967.

- Michel, L., Schönbach, K. H. and Fischer, H., "Neutron Emission from a Small 1-kJ Plasma Focus," <u>Applied Physics Letters</u>, Vol. 24, No. 2, 15 January 1974, pp. 57-59.
- Michel, L., Krompholz, H. and Herziger, G., "Neutron Emission from a 1 kJ Plasmafocus Device," Physics Letters, Vol. 88A, No. 8, 5 April 1982, pp. 400-402.
- Michels, C. J. and Ramins, P., "Performance of Coaxial Gun with Various Propellents," <u>The Physics of Fluids</u>, Vol. 7, No. 11, Part 2, November 1964, pp. S71-S74.
- Michels, C. J., Heighway, J. E. and Johansen, A. E., "Analytical and Experimental Performance of Capacitor Powered Coaxial Plasma Guns," AIAA Journal, Vol. 4, No. 5, May 1966, pp. 823-830.
- Michels, C. J. and Johansen, A. E., "Experimental and Theoretical Performance of Coaxial Plasma Guns," Report No. NASA TN D-3469, National Aeronautics and Space Administration, Washington, D. C., July 1966.

- Michels, C. J. and Hettel, H. J., "Transient Spectral Study of Discharges in Coaxial Plasma Guns," in <u>Proceedings of the APS</u>

 <u>Topical Conference on Pulsed High-Density Plasmas, University of California, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 19-22 September 1967</u>, Report No. LA-3770, pp. E6-1-E6-5, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 29 September 1967.
- Michels, C. J. and Hettel, H. J., "Correlation of Transient Spectra with Performance in Coaxial Plasma Guns," Report No. NASA TN D-4385,

 National Aeronautics and Space Administration, Washington, D. C.,
 February 1968.
- Michels, C. J., "A Resume of Research on Coaxial Plasma Guns Performed at Lewis Research Center," Report No. NASA TM X-52431, National Aeronautics and Space Administration, Washington, D. C., 1968.
- Milanese, M. M. and Pouzo, J. O., "Evidence of Non-Thermal Processes in a 1-MJ Plasma Focus Device by Analysing the Neutron Spectra,"

 Nuclear Fusion, Vol. 18, No. 4, April 1978, pp. 533-536.
- Milanese, M. and Pouzo, J., "Neutron-Yield Scaling Laws for Plasma Focus Experiments," in <u>Small Scale Physics Experiments</u>, Proceedings of Symposium on Small Scale Laboratory Plasma Experiments, Spring College on Plasma Physics, 25 May--19 June 1987, pp. 66-79, Lee, S. and Sakanaka, P. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.

- Millar, D. D. and Watson-Munro, C. N., "Experimental Studies of J x B Ionizing Fronts Propagation over the Pressure Range 10 to 800 Millitorr," in <u>Proceedings of the Seventh International Conference on Phenomena in Ionized Gases, Beograd, Yugoslavia, 22-27 August 1965</u>, Vol. II, pp. 783-787, Perovic, B. and Tosic, D. (eds.), Gradevinska Knjiga Publishing House, Beograd, Yugoslavia, 1966.
- Miyamoto, S., Imasaki, K., Ozaki, T., Yugami, N., Fujita, H. K., Sawada, S., Akiba, T., Emura, K., Nakai, S. and Yamanaka, C., "Performance of the Plasma Erosion Opening Switch for High Voltage Ion Diode Experiments," in <u>Digest of Technical Papers, Proceedings of the Fifth IEEE Pulsed Power Conference, Arlington, Virginia, 10-12 June 1985</u>, pp. 432-435, Turchi, P. J. and Rose, M. F. (eds.), Institute of Electrical and Electronics Engineers, New York City, New York, 1985.
- Molen, G. M., "Electron Burst Measurements Produced by a Plasma Focus," in Energy Storage, Compression, and Switching, Vol. 2, Proceedings of the Second International Conference on Energy Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 629-641, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- Moo, S. P., "Plasma Neutron Technology," in <u>Second Tropical College on</u>

 <u>Applied Physics: Laser and Plasma Technology</u>, University of Malaya,

 Malaysia, 17 March--5 April 1986, pp. 329-341, Lee, S., Tan, B. C.,

 Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and Chen, Y. H.

- (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Moo, S. P., Chakrabarty, C. K. and Lee, S., Half-Life Measurements

 Using Plasma Neutrons," in Laser and Plasma Technology, Proceedings
 of the Third Tropical College on Applied Physics, University of

 Malaya, Kuala Lumpur, Malaysia, 30 May--18 June 1988, pp. 462-467,

 Wong, C. S., Lee, S., Tan, B. C., Chew, A. C., Low, K. S. and Moo,
 S. P. (eds.), World Scientific Publishing Company, Inc., Teaneck,

 New Jersey, 1990.
- Morgan, P. D., Peacock, N. J. and Potter, D. E., "Comparison of a Two-Dimensional Numerical Model with the Dense Plasma Focus Experiment," in Proceedings of the Third European Conference on Controlled Fusion and Plasma Physics, Utrecht, The Netherlands, 23-27 June 1969, Symposium on Beam-Plasma Interactions, p. 118, Wolters-Noordhoff Publishing, Groningen, The Netherlands, 1969.
- Morgan, P. D. and Peacock, N. J., "Measurement of Beta in a Plasma Focus," in <u>Proceedings of the Second Topical Conference on Pulsed High-Beta Plasmas, Garching, near Munich, Germany, 3-6 July 1972, Report No. IPP 1/127, pp. 179-182, Lotz, W. (ed.), Max Planck Institut für Plasmaphysik, Garching, near Munich, Germany, July 1972.</u>
- Morgan, P. D., Peacock, N. J., Cloth, P., Conrads, H., Maisonnier, Ch., Pecorella, F., Rager, J. P. and Samuelli, M., "Evidence for a Broad

- and Uniform Neutron-Producing Plasma Column in the Plasma Focus," in Proceedings of the Sixth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 30 July--4 August 1973, Vol. I, pp. 359-362, European Physical Society, Vienna, Austria, 1973.
- Morgan, P. D., Peacock, N. J., Cloth, P., Conrads, H., Maisonnier, Ch., Pecorella, F., Rager, J. P. and Samuelli, M., "Evidence for a Broad and Uniform Neutron-Producing Plasma Column in the Plasma Focus," in Proceedings of the Sixth European Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 30 July--4 August 1973, Vol. II, pp. 391-394, European Physical Society, Vienna, Austria, 1973.
- Morozov, A. I., "The Acceleration of a Plasma by a Magnetic Field,"

 Soviet Physics--JETP, Vol. 5, No. 2, September 1957, pp. 215-220.

 (English translation of Russian original in Zhurnal

 'Eksperimental' nol i Teoreticheskol Fiziki, Vol. 32, No. 2, February 1957, pp. 305-310.)
- Morozov A. I. and Solov'ev, L. S., "On the Acceleration of Plasma in a Coarial System," <u>Soviet Physics--Technical Physics</u>, Vol. 5, No. 9, March 1961, pp. 1033-1038. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 30, No. 9, September 1960, pp. 1104-1108.)
- Morozov, A. I. and Solov'ev, L. S., "Axially Symmetric and Steady-State Plasma Flow across an Azimuthal Magnetic Field," <u>Soviet Physics--</u>
 <u>Technical Physics</u>, Vol. 9, No. 3, September 1964, pp. 337-346.

- (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 34, No. 3, March 1964, pp. 429-443.)
- Morozov, A. I. and Solov'ev, L. S., "Plane Flows of Ideally Conducting Compressible Fluids with Hall Effects Considered," Soviet Physics—

 Technical Physics, Vol. 9. No. 7, January 1965, pp. 889-897.

 (English translation of Russian original in Zhurnal Tekhnicheskoi

 Fiziki, Vol. 34, No. 7, July 1964, pp. 1141-1153.)
- Morozov; A. I. and Solov'ev, L. S., "The Acceleration of Rotating

 Plasmas in Axially Symmetric Channels," <u>Soviet Physics--Technical</u>

 <u>Physics</u>, Vol. 9, No. 7, January 1965, pp. 898-907. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>,

 Vol. 34, No. 7, July 1964, pp. 1154-1169.)
- Morozov, A. I. and Solov'ev, L. S., "A Similarity Parameter in the

 Theory of Plasma Flow," <u>Soviet Physics--Doklady</u>, Vol. 10, No. 9,

 March 1966, pp. 834-836. (English translation of Russian original in

 <u>Doklady Akademii Nauk SSSR</u>, Vol. 164, No. 1, September 1965, pp. 80-83.)
- Morozov, A. I., "Equilibrium Configurations of Uniformly Accelerated Axially Symmetric Plasmoids," <u>Soviet Physics--Technical Physics</u>, Vol. 12, No. 1, July 1967, pp. 53-56. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 37, No. 1, January 1967, pp. 79-84.)

- Morozov, A. I. and Lebedev, S. V., "Theory of Focusing of a Quasineutral Beam by Axially Symmetric Electromagnetic Fields," <u>Soviet Physics--</u>
 <u>Technical Physics</u>, Vol. 12, No. 4, October 1967, pp. 455-461.

 (English translation of Russian original in <u>Zhurnal Tekhnicheskoi</u>
 Fiziki, Vol. 37, No. 4, April 1967, pp. 633-644.)
- Morozov, A. I., Kovrov, P. E. and Vinogradova, A. K., "Experimental Confirmation of the Existence of Stationary Soft-Compressing Plasma Currents," <u>JETP Letters</u>, Vol. 7, No. 8, 20 April 1968, pp. 199-201.

 (English translation of Russian original in <u>Zhurnal</u>

 <u>Éksperimental'nol i Teoreticheskol Fiziki, Pis'ma v Redaktsiiu</u>, Vol. 7, No. 8, 20 April 1968, pp. 257-260.)
- Morozov, A. I., "Stationary Plasma Flow with Compression," Soviet

 Physics--Technical Physics, Vol. 12, No. 12, June 1968, pp. 15801588. (English translation of Russian original in Zhurnal

 Tekhnicheskoi Fiziki, Vol. 37, No. 12, December 1967, pp. 21472159.)
- Morozov, A. I., Kislov, A. Ya. and Zhubkhov, I. P., "High-Current Plasma Accelerator with Closed Electron Drift," Report No. FTD-MT-24-384-68, Foreign Technology Division, Wright-Patterson AFB, Ohio, 13

 November 1968. (English translation of the Russian original in Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki, Pis'ma v

 Redaktsiiu (Priolozheniye), Vol. 7, No. 7, 1968, pp. 224-227.)

- Morozov, A. I., "Stationary Plasma Accelerators and Prospects for Their Application in Thermonuclear Investigations," Report No. FTD-MT-24-447-68, Foreign Technology Division, Wright-Patterson AFB, Ohio, 15 April 1969. (English translation of Russian original in Proceedings of the Third International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Novosibirsk, USSR, 1-7 August 1968, Vol. II, IAEA-CN-24, International Atomic Energy Agency, Vienna, Austria, March 1969; Nuclear Fusion supplement 1969, pp. 3-18.)
- Morozov, A. I., "Steady-State Plasma Accelerators and Their Possible
 Applications in Thermonuclear Research," in Proceedings of the Third
 International Conference on Plasma Physics and Controlled Nuclear
 Fusion, Novosibirsk, USSR, 1-7 August 1968, IAEA-CN-24,
 International Atomic Energy Agency, Vienna, Austria, 1969; Nuclear
 Fusion special supplement 1969, pp. 111-119. (English translation of
 Russian original in Proceedings of the Third International
 Conference on Plasma Physics and Controlled Nuclear Fusion,
 Novosibirsk, USSR, 1-7 August 1968, Vol. II, IAEA-CN-24,
 International Atomic Energy Agency, Vienna, Austria, March 1969;
 Nuclear Fusion supplement 1969, pp. 3-18.)
- Morozov, A. I., "Plasma Accelerators," in <u>Proceedings of the Sixth</u>

 <u>European Conference on Controlled Fusion and Plasma Physics, Moscow,</u>

 <u>USSR, 30 July--4 August 1973</u>, Vol. II, pp. 285-305, European

 Physical Society, Vienna, Austria, 1973.

- Morozov, A. I., "Plasma Accelerators," Report No. FTD-HT-24-1042-74,

 Foreign Technology Division, Wright-Patterson AFB, Ohio, 22 August
 1974. (English translation of Russian original in <u>Plazmennyye</u>

 Uskoriteli, Izd vo Mashinostroyeniye, pp. 5-15, Moscow, USSR, 1973.)
- Morozov, A. I. and Shubin, A. P., "Bounded Axisymmetric Plasmadynamic Configurations with an Azimuthal Magnetic Field," Soviet Journal of Plasma Physics, Vol. 9, No. 3, May/June 1983, pp. 385-388. (English translation of Russian original in Fizika Plasmy, Vol. 9, No. 3, May/June 1983, pp. 659-664.)
- Morse, T. F., "Electromagnetic Acceleration of a Shock Wave in a Constant-Area Duct," <u>The Physics of Fluids</u>, Vol. 5, No. 5, May 1962, pp. 596-603.
- Mostov, P. M., Neuringer, J. L. and Rigney, D. S., "Electromagnetic Acceleration of a Plasma Slug," <u>The Physics of Fluids</u>, Vol. 4, No. 9, September 1961, pp. 1097-1104.
- Mozer, A., Sadowski, M., Herold, H. and Schmidt, H., "Experimental Studies of Fast Deuterons, Impurity- and Admixture-Ions Emitted from a Plasma Focus," <u>Journal of Applied Physics</u>, Vol. 53, No. 4, April 1982, pp. 2959-2964.
- Mulyodrono, S., Wong, C. S. and Lee, S., "High Speed Flow Simulation in an E. M. Shock Tube," in <u>Second Tropical College on Applied Physics:</u>

 <u>Laser and Plasma Technology</u>, University of Malaya, Malaysia, 17

- March--5 April 1986, pp. 491-500, Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Muntenbruch, H., "Current Status of Research on Electromagnetically

 Produced Unsteady Shock Waves," <u>The Physics of Fluids</u>, supplement I,

 Vol. 12, No. 5, Part 2, May 1969, pp. I-11-I-21.
- Musin, A. K., "Characteristics of Several Types of Plasma Accelerators,"

 <u>Soviet Physics--Technical Physics</u>, Vol. 11, No. 9, March 1967, pp.
 1211-1219. (English translation of Russian original in <u>Zhurnal</u>

 <u>Tekhnicheskoi Fiziki</u>, Vol. 36, No. 9, September 1966, pp. 16261635.)
- Nagel, D. J., "X-Ray Emission from High-Temperature Laboratory Plasmas," in Advances in X-Ray Analysis, Vol. 18, Proceedings of the 23rd Annual Conference on Applications of X-Ray Analysis, Denver, Colorado, 7-9 August 1974, pp. 1-25, Pickles, W. L., Barrett, C. S., Newkirk, J. B. and Ruud, C. O. (eds.), Plenum Press, New York City, New York, 1975.
- Nardi, V., "Theory of Magnetic Bundles in Dense Flowing Plasma," in

 Contributions to the Fourth European Conference on Controlled Fusion

 and Plasma Physics, Rome, Italy, 31 August--4 Septembe. 1970, p.

 109, Comitato Nazionale per l'Energia Nucleare, Rome, Italy, 1970.

- Nardi, V., "Repetitive Plasma Focus Powered by a = 200 MJ Flywheel

 Generator," in <u>Proceedings of the International Conference on</u>

 Radiation Test Facilities for the CTR Surface and Materials Program,

 Argonne National Laboratory, 15-18 July 1975, Report No. ANL/CTR-75
 4, pp. 527-538, Argonne National Laboratory, Argonne, Illinois,

 1975.
- Nardi, V., "Megagauss Fields by Automodulating Currents," in Energy
 Storage, Compression, and Switching, Proceedings of the
 International Conference on Energy Storage, Compression, and
 Switching, Asti-Torino, Italy, 5-7 November 1974, pp. 173-188,
 Bostick, W. H., Nardi, V., Zucker, O. S. F. (eds.), Plenum Press,
 New York City, New York, 1976.
- Nardi, V., Bostick, W. H., Feugeas, J., Prior, W. and Cortese, C.,

 "Energy Spectra of Deuteron and Electron Beams from Focused

 Discharges and Optimization Criteria," in <u>Proceedings of the Seventh</u>

 <u>International Conference on Plasma Physics and Controlled Fusion</u>

 <u>Research, Innsbruck, Austria, 23-30 August 1978</u>, Vol. II, IAEA-CN
 37, International Atomic Energy Agency, Vienna, Austria, May 1979;

 Nuclear Fusion supplement 1979, pp. 143-157.
- Nardi, V., Powell, C., Prior, W. and Bostick, W. H., "Ion Imaging and Energy Spectrum from the Plasma Focus Ion Emission," in <u>Europhysics</u>

 <u>Conference Abstracts of the Eleventh European Conference on</u>

 <u>Controlled Fusion and Plasma Physics, Aachen, Federal Republic of</u>

 Germany, 5-9 September 1983, Vol. 7D, Part I, pp. 489-492,

- Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.
- Nardi, V., Luo, C. M., Powell, C., Brzosko, J., Bortolotti, A. and
 Mezzetti, F., "Confinement of MeV Ions in a Dense Pinch," in

 <u>Europhysics Conference Abstracts of the Thirteenth European</u>

 <u>Conference on Controlled Fusion and Plasma Heating, Schliersee,</u>

 <u>Federal Republic of Germany, 14-18 April 1986</u>, Vol. 10C, Part I, pp. 368-371, Briffod, G. and Kaufmann, M. (eds.), European Physical

 Society, Geneva, Switzerland, 1986.
- Nardi, V., Bilbao, L., Brzosko, J., Esper, M., Powell, C., Zeng, D.,
 Bortolotti, A. and Mezzetti, F., "Enhanced Confinement of
 Accelerated Ions in Focused Discharges," in <u>Proceedings of the 14th</u>
 European Conference on Controlled Fusion and Plasma Physics, Madrid,

 <u>Spain, 22-26 June 1987</u>, Vol. 11D, Part II, p. 548, Engelmann, F. and
 Alvarez Rivas, J. L. (eds.) Europhysics Conference Abstracts,
 European Physical Society, 1987.
- Nardi, V., Bilbao, L., Bortolotti, A., Brzosko, J. S., Powell, C. and Zeng, D., "Fusion of Heavy Ions in Advanced Focused Discharges," in Proceedings of the Twelfth International Conference on Plasma
 Physics and Controlled Nuclear Fusion Research, Nice, France, 12-19
 October 1988, Vol. 2, IAEA-CN-50, International Atomic Energy
 Agency, Vienna, Austria, October 1989; Nuclear Fusion supplement
 1989, pp. 743-750.

- Neff, W., Krompholz, H., Ruhl, F., Schonbach, K. and Herziger, G.,
 "Subnanosecond MeV Electron Beams from the Plasma Focus," Physics
 Letters, Vol. 79A, No. 2/3, 29 September 1980, pp. 165-166.
- Neil, G. R. and Post, R. S., "Observation of Overdense Infrared Scattering from a Post Pinch Plasma Focus," Plasma Physics, Vol. 23, No. 5, May 1981, pp. 425-434.
- Neil, G. R. and Post, R. S., "Infrared Emission from the Plasma Focus," Plasma Physics, Vol. 23, No. 6, June 1981, pp. 515-520.
- Nemirovskii, A. Z., Malyushevskii, P. P. and Golubenko, Yu. G.,

 "Efficient Operation of a Plasma Accelerator with Condensed Media,"

 <u>Soviet Physics--Technical Physics</u>, Vol. 23, No. 9, September 1978,

 pp. 1065-1068. (English translation of original in <u>Zhurnal</u>

 <u>Tekhnicheskoi Fiziki</u>, Vol. 48, No. 9, September 1978, pp. 1871
 1876.)
- Newman, C. E. and Petrosian, V., "Production of Hard X Rays in a Plasma Focus," <u>The Physics of Fluids</u>, Vol. 18, No. 5, May 1975, pp. 547-551.
- Newton, A. A., Marshall, J. and Morse, R. L., "Observation of Coaxial M. H. D. Flow," in <u>Proceedings of the Third European Conference on Controlled Fusion and Plasma Physics, Utrecht, The Netherlands, 23-27 June 1969</u>, Symposium on Beam-Plasma Interactions, p. 119, Wolters-Noordhoff Publishing, Groningen, The Netherlands, 1969.

- Noll, R., Neff, W., Ruhl, F. and Herziger, G., "Observation of Picosecond Modulated Electron Beams from the Plasma Focus," Physics
 Letters, Vol. 99A, No. 9, 26 December 1983, pp. 435-436.
- Norem, J., "Summary of Fueling by Plasma Guns," in <u>Proceedings of the Fusion Fueling Workshop</u>, <u>Princeton</u>, <u>New Jersey</u>, 1-3 <u>November 1978</u>, Report No. CONF-771129, p. 12, U. S. Department of Energy, Washington, D. C., March 1978.
- Northrup, T. G., "The Stability of the Coaxial Plasma Gun," Report No. GDC-ERR-SD-079, General Dynamics/Convair, San Diego, California, August 1960.
- Norwood, J., Jr., "Calculation of the Effect of Viscous Drag on the Performance of a Coaxial Plasma Gun," Report No. NASA TN D-3796, National Aeronautics and Space Administration, Washington, D. C., January 1967.
- Notkin, G. E., Filippov, N. V. and Shchegolv, D. A., "Measurement of the Faraday Rotation within the Plasma of a Gas Discharge of the 'Plasma Focus' Type," in <u>Proceedings of the Fifth European Conference on Controlled Fusion and Plasma Physics, Grenoble, France, 21-25 August 1972</u>, Vol. 1, p. 69, Association EURATOM--Commissariat a l'Energie Atomique, Centre d'Etudes Nucleaires de Grenoble, Grenoble, France, 1972.

- Nowikowski, J., "Preliminary Investigations of a Noncylindrical Z-Pinch Supplied from a 25 kJ Current Generator," <u>Nukleonika</u>, Vol. 19, No. 1, January 1974, pp. 34-42.
- Odstrcil, D., "Two-Dimensional Model of the Plasma Coaxial Accelerator,"

 <u>Computer Physics Communications</u>, Vol. 20, No. 1, September 1980, pp. 65-68.
- Oppenlander, T., Pross, G., Decker, G. and Trunk, M., "The Plasma Focus

 Current in the Compression Phase," Plasma Physics, Vol. 19, No. 11,

 November 1977, pp. 1075-1083.
- Orlov, M. M., Terent'ev, A. R. and Khrabrov, V. A., "Measurement of Magnetic Fields in a Plasma Focus," <u>Soviet Journal of Plasma</u>

 <u>Physics</u>, Vol. 11, No. 12, December 1985, pp. 876-877. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 11, No. 12, December 1985, pp. 1517-1520.)
- Osher, J. E., "Trapping and Prolonged Confinement of an Energetic

 Deuterium Plasma in a Static Cusped Magnetic Field," Physical Review

 Letters, Vol. 8, No. 8, 15 April 1962, pp. 305-309.
- Palumbo. ", "The European Community Activities in the Field of
 Controlled Thermonuclear Fusion," in <u>Proceedings of the Fifth</u>
 European Conference on Controlled Fusion and Plasma Physics,
 Grenoble, <u>France</u>, 21-25 August 1972, Vol. 2, pp. 195-211,

- Association EURATOM--Commissariat à l'Énergie Atomique, Centre d'Etudes Nucleaires de Grenoble, Grenoble, France, 1972.
- Palumbo, D. J. and Begun, M., "Plasma Acceleration in Pulsed Ablative Arc Discharges," Report No. AFOSR-TR-76-0738, Air Force Office of Scientific Research, Bolling AFB, Washington, D. C., 1976.
- Palumbo, D. J. and Begun, M., "Plasma Acceleration in Pulsed Ablative Arc Discharges," Report No. AFOSR-TR-77-0623, Air Force Office of Scientific Research, Bolling AFB, Washington, D. C., 1977.
- Patou, C., Simonnet, A. and Watteau, J. P., "Dynamics and Neutron

 Emission of a Plasma Physics Experiment," in <u>Proceedings of the APS</u>

 <u>Topical Conference on Pulsed High-Density Plasmas, Los Alamos</u>

 <u>Scientific Laboratory, Los Alamos, New Mexico, 19-22 September 1967,</u>

 Report No. LA-3770, pp. C2-1-C2-6, Los Alamos Scientific Laboratory,

 Los Alamos, New Mexico, 29 September 1967.
- Patou, C., Simonnet, A. and Watteau, J. P., "Measured Anisotropies of the Plasma Focus Neutron Emission Compared with Proposed Mechanisms," Physics Letters, Vol. 29A, No. 1, 24 March 1969, pp. 1-3.
- Patterson, E. L., "Energy Scaling of a Plasma Focus Device," Report No. SC-RR-69-323, Sandia National Laboratories, Albuquerque, New Mexico, June 1969.

- Pavlovskii, A. I., Suvorov, V. N., Potikha, V. I. and Tulin, N. A.,

 "Correlation between the Pulses of Penetrating Radiation and the

 Electrical Characteristics of a Plasma-Focus Discharge," <u>Soviet</u>

 <u>Journal of Plasma Physics</u>, Vol. 4, No. 1, January/February 1978, pp.

 3-5. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol.

 4, No. 1, January/February 1978, pp. 10-13.)
- Peacock, N. J., Wilcock, P. D., Speer, R. J. and Morgan, P. D.,

 "Properties of the Dense Plasma Produced in Plasma Focus," in

 Proceedings of the Third International Conference on Plasma Physics

 and Controlled Nuclear Fusion Research, Novosibirsk, USSR, 1-7

 August 1968, Vol. II, IAEA-CN-24, International Atomic Energy

 Agency, Vienna, Austria, March 1969; Nuclear Fusion supplement 1969,

 pp. 51-65.
- Peacock, N. J., Speer, R. J. and Hobby, M. G., "Spectra of Highly

 Ionized Neon and Argon in a Plasma Focus Discharge," <u>Journal of</u>

 <u>Physics B, Atomic and Molecular Physics</u>), Series 2, Vol. 2, No. 7,

 July 1969, pp. 798-810.
- Peacock, N. J., Hobby, M. G. and Morgan, P. D., "Measurements of the Plasma Confinement and Ion Energy in the Dense Plasma Focus," in Proceedings of the Fourth International Conference of Plasma Physics and Controlled Nuclear Fusion Research, Madison, Wisconsin, 17-23

 June 1971, Vol. I, IAEA-CN-28, International Atomic Energy Agency, Vienna, Austria, October 1971; Nuclear Fusion supplement 1971, pp. 537-551.

- Peacock, N. J., Forrest, M. J., Hobby, M. G. and Morgan, P. D.,

 "Measurement of the Ion Energy in the Dense Plasma Focus," in

 Proceedings of the Fifth European Conference on Controlled Fusion

 and Plasma Physics, Grenoble, France, 21-25 August 1972, Vol. 1, p.

 66, Association EURATOM--Commissariat à l'Énergie Atomique, Centre
 d'Etudes Nucleaires de Grenoble, Grenoble, France, 1972.
- Peacock, N. J., "X-Ray and Neutron Production Optimization in the Dense Plasma Focus," Report No. AFWL-TR-73-147, Air Force Weapons Laboratory, Kirtland AFB, New Mexico, November 1973.
- Peacock, N. J. and Norton, B. A., "Measurement of Megagauss Magnetic Fields in a Plasma Focus Device," Physical Review A, Vol. 11, No. 6, June 1975, pp. 2142-2146.
- Peacock, N. J., Forrest, M. J., Goldman, M. V., Rudolph, T., Morgan, P. D., Kuriki, K. and Offenberger, A. A., "Absorption of CO₂ Laser Light by a Dense High-Temperature Plasma," in <u>Proceedings of the Sixth International Conference on Plasma Physics and Controlled Fusion Research, Berchtesgaden, Federal Republic of Germany, 6-13 October 1976, Vol. II, IAEA-CN-35, International Atomic Energy Agency, Vienna, Austria, May 1977; <u>Nuclear Fusion</u> supplement 1977, pp. 635-648.</u>
- Peacock, N. J., "Spectroscopic Measurements of Magnetic Fields in Dense Plasmas," in <u>Energy Storage</u>, <u>Compression</u>, and <u>Switching</u>, Vol. 2, Proceedings of the Second International Conference on Energy

- Storage, Compression, and Switching, Venice, Italy, 5-8 December 1978, pp. 563-577, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City, New York, 1983.
- Pecorella, F., Samuelli, M., Messina, A. and Strangio, C., "Time and Space Resolved Neutron Measurements on a Dense Plasma Focus," The Physics of Fluids, Vol. 20, No. 4, April 1977, pp. 675-682.
- Pedrotti, L., Deis, G., Wong, R., Calderon, M., Chargin, A. and Garner, D., "The Beta II Plasma-Gun Mechanical Design and Construction," in <a href="Proceedings of the Eighth Symposium on Engineering Problems of Fusion Research, San Francisco, California, 13-16 November 1979", Vol. I, pp. 203-208, McGregor, C. K. and Batzer, T. H. (eds.), Institute of Electrical and Electronics Engineers, New York City, New York, 1979.
- Persiani, P. J., "A Technical Critique on Radiation Test Facilities for the CTR Surface and Materials Program," Report No. ANL/CTR-75-1, Argonne National Laboratory, Argonne, Illinois, February 1975.
- Persiani, P. J., "Technical Assessment of the Potentials of Pulsed High-Beta Plasma Devices as CTR Radiation Test Facilities," in <u>Pulsed High Beta Plasmas</u>, Proceedings of the Third Topical Conference on Pulsed High Beta Plasmas, UKAEA Culham Laboratory, Abingdon, Oxfordshire UK, 9-12 September 1975, pp. 599-603, Evans, D. E. (ed.), Pergamon Press, Oxford, England, 1976.

- Pert, G. J., "The Production of Fast Moving Plasma by Electromagnetic Guns," PhD thesis, University of London, London, England, April 1966.
- Pert, G. J., "The Operation of a Single-Electrode Coaxial Plasma Gun,"

 <u>Canadian Journal of Physics</u>, Vol. 46, No. 18, 15 September 1968, pp. 2055-2058.
- Pert, G. J., "A Simple Model of the Coaxial Plasma Gun with Positive

 Central Electrode," <u>British Journal of Applied Physics (Journal of Physics D: Applied Physics)</u>, Series 2, Vol. 1, No. 11, November 1968, pp. 1487-1493.
- Pert, G. J., "A Simple Model of the Coaxial Plasma Gun with Positive

 Central Electrode: II," <u>British Journal of Applied Physics (Journal of Physics D: Applied Physics)</u>, Series 2, Vol. 2, No. 3, March 1969, pp. 429-434.
- "Plasma Guns. (January 1972-June 1987) Citations from the International Aerospace Abstracts Data Base," Report No. PB87-862157, National Technical Information Service, Springfield, Virginia, June 1987.
- "Plasma Guns. 1970-April 1985 (Citations from the Engineering Index Data Base). Report for 1970-April 1985," Report No. PB85-857779, National Technical Information Service, Springfield, Virginia, April 1985.

- "Plasma Guns: Types and Uses. February 1974-December 1980 (Citations from the Energy Data Base). Report for February 1974-December 1980,"

 Report No. PB-81-859332, National Technical Information Service,

 Springfield, Virginia, February 1981.
- "Plasma Guns: Types and Uses. January 1970-December 1980 (Citations from the NTIS Data Base). Report for January 1970-December 1980," Report No. PB-81-859324, National Technical Information Service, Springfield, Virginia, February 1981.
- Popescu, I. I. and Vlad, M., "A Time Resolving Method for Determining the Energy Spectrum of Neutrons Emitted by a Plasma Focus Device," in Physics and Technology, Zvikov, Czechoslovakia, 7-9 October 1981, Report No. IPPCZ-244, pp. 126-127, Ceskoslovenska Akademie Ved, Prague, Czechoslovakia, October 1981.
- Poppa, H., "Electrode Phenomena in High Energy Density Discharges as Applied to Plasma Acceleration Problems," Report No. NASA CR-506, National Aeronautics and Space Administration, Washington, D. C., July 1966.
- Post, R. S. and Marshall, T. C., "Infrared Radiation from the Dense Plasma Focus," <u>The Physics of Fluids</u>, Vol. 17, No. 2, February 1974, pp. 452-455.

- Potapov, A. V., Babkin, G. V. and Ogorodnikov, S. N., "Experimental Examination of the Crisis in High-Current Plasma Accelerators,"

 <u>Soviet Journal of Plasma Physics</u>, Vol. 9, No. 5, September/October 1983, pp. 564-569. (English translation of Russian original in Fizika Plasmy, Vol. 9, No. 5, September/October 1983, pp. 968-976.)
- Potter, D., "The Formation of High Density Pinches," in <u>Proceedings of</u>
 the Eighth European Conference on Controlled Fusion and Plasma

 <u>Physics, Prague, Czechoslovakia, 19-23 September 1977</u>, Vol. I, p.
 88, Institute of Plasma Physics, Czechoslovak Academy of Sciences,
 Prague, Czechoslovakia, 1977.
- Potter, D., "The Formation of High-Density Z-Pinches," <u>Nuclear Fusion</u>, Vol. 18, No. 2, February 1978, pp. 813-823.
- Potter, D. E., "Neutron Production Mechanisms in the Plasma Focus," in

 Contributions to the Fourth European Conference on Controlled Fusion

 and Plasma Physics, Rome, Italy, 31 August--4 September 1970, p.

 116, Comitato Nazionale per l'Energia Nucleare, Rome, Italy, 1970.
- Potter, D. E., "Numerical Studies of the Plasma Focus," <u>The Physics of</u> Fluids, Vol. 14, No. 9, September 1971, pp. 1911-1924.
- Potter, D. E. and Haines, M. G., "Non-Adiabatic Ions in the Distribution Function from Self-Consistent Calculations of the Plasma Focus," in Proceedings of the Fourth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Madison, Wisconsin, 17-23

- June 1971, Vol. I, IAEA-CN-28, International Atomic Energy Agency, Vienna, Austria, October 1971; Nuclear Fusion supplement 1971, pp. 611-620.
- Pouzo, J. and Gratton, J., "Design and Construction of the PF-II

 Device," in Energy Storage, Compression, and Switching, Vol. 2,

 Proceedings of the Second International Conference on Energy

 Storage, Compression, and Switching, Venice, Italy, 5-8 December

 1978, pp. 643-653, Nardi, V., Sahlin, H. and Bostick, W. H. (eds.),

 Plenum Press, New York City, New York, 1983.
- Pouzo, J., Cortazar, D., Milanese, M., Moroso, R. and Piriz, R., "Limits of Deuterium Pressure Range with Neutron Production in Plasma Focus Devices," in <u>Small Scale Physics Experiments</u>, Proceedings of Symposium on Small Scale Laboratory Plasma Experiments, Spring College on Plasma Physics, 25 May--19 June 1987, pp. 80-100, Lee, S. and Sakanaka, P. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Price, D. W., "Experimental Studies of Coaxial Plasma Gun Current," PhD dissertation, University of New Mexico, Albuquerque, New Mexico, May 1988.
- Price, D. W., "Bibliography of Documents Related to the Theory,

 Operation and Performance of Coaxial Plasma Guns," Report No. AFWL
 TR-88-72, Kirtland AFB, New Mexico, September 1988.

- Price, D. W., "Experimental Studies of Coaxial Plasma Gun Current,"

 Report No. AFWL-TR-88-79, Kirtland AFB, New Mexico, September 1988.
- Prior, W., Bostick, W. H., Grunberger, L., Palmadesso, P. and Zorskie, J., "Properties of the Spokes in Coaxial and Parallel-Plate Plasma Accelerators," in <a href="Proceedings of the APS Topical Conference on Pulsed High-Density Plasmas, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 19-22 September 1967, Report No. LA-3770, pp. E3-1-E3-4, Los Alamos Scientific Laboratory, Los Alamos, New Mexico, 29 September 1967.
- Pronko, M. S. and Molen, G. M., "An Investigation of Accelerating Mechanisms in a Plasma Focus Relevant to Interrupting Switches," Report No. AFOSR-TR-83-0794, Air Force Office of Scientific Research, Bolling AFB, Washington, D. C., July 1983.
- Pykin, Yu. A. and Vavilov, V. A., "An Experimental Investigation into Noise Radiation from a Plasma Gun," <u>Soviet Engineering Research</u>, Vol. 2, No. 9, September 1982, pp. 36-38. (English translation of original in <u>Vestnik Mashinostroeniya</u>, Vol. 62, Issue 9, September 1982, pp. 46-48.)
- Raadu, M. A., "Dynamics of a Coaxial Plasma Gun," Report No. TRITA-EPP-77-02, Department of Plasma Physics, Royal Institute of Technology, Stockholm, Sweden, January 1977.

- Raadu, M. A., "Critical Ionization Velocity and the Dynamics of a Coaxial Plasma Gun," <u>Journal of Physics D: Applied Physics</u>, Vol. 11, No. 3, 21 February 1978, pp. 363-378.
- Raadu, M. A., "The Role of Electrostatic Instabilities in the Critical Ionization Velocity Mechanism," <u>Astrophysics and Space Science</u>, Vol. 55, No. 1, May 1978, pp. 125-138.
- Rabinovich, M. S., Cordey, J. G. and Hiraoka, T., "Conferences and Symposia. Plasma Physics and Controlled Nuclear Fusion Research.

 Summaries of the Eighth International Conference on Plasma Physics and Controlled Fusion Research, Brussels, Belgium, 1-10 July 1980,"

 Nuclear Fusion, Vol. 20, No. 12, December 1980, pp. 1617-1632.
- Rabinovich, M. S., "Summary on Magnetic-Confinement Experiments," in

 Proceedings of the Eighth International Conference on Plasma Physics

 and Controlled Fusion Research, Brussels, Belgium, 1-10 July 1980,

 Vol. II, IAEA-CN-38, International Atomic Energy Agency, Vienna,

 Austria, June 1981; Nuclear Fusion supplement 1981, pp. 769-783.
- Rager, J. P., "Time and Space Resolved Study of X-Ray Emitting Zones in a 24 kJ-Mather Type Plasma Focus," in <u>Proceedings of the Seventh</u>

 <u>European Conference on Controlled Fusion and Plasma Physics,</u>

 <u>Lausanne, Switzerland, 1-5 September 1975</u>, Vol. I, p. 58, Ecole

 Polytechnique Federale de Lausanne, Lausanne, Switzerland, 1975.

- Rager, J. P., "Observations of Soft X-Ray Emitting Flasma Structures

 During the Main Neutron Emission of Plasma Foci," in <u>Pulsed High</u>

 <u>Beta Plasmas</u>, Proceedings of the Third Topical Conference on Pulsed

 High Beta Plasmas, UKAEA Culham Laboratory, Abingdon, Oxfordshire

 UK, 9-12 September 1975, pp. 391-394, Evans, D. E. (ed.), Pergamon

 Press, Oxford, England, 1976.
- Rager, J. P., "The Plasma Focus," Report No. 81.19/cc, Associazione

 EURATOM--Comitato Nazionale Energia Nucleare sulla Fusion, Centro di

 Frascati, Rome, Italy, April 1981.
- Rager, J. P., Robouch, B. V., Hubner, K. and Steinmetz, K., "Temporal and Spatial Structure of the Plasma Focus Neutr n Source Usin, a Neutron-Pinhole Camera," Report No. 81.25, Associazione EURATOM---Comitato Nazionale Energia Nucleare sulla Fusione, Centro di Frascati, Rome, Italy, May 1981.
- Rager, J. P., Bilbao, L. E., Bruzzone, H. A., Gourlan, C., Guidoni, U., Kroegler, H., Podda, S., Robouch, B. V. and Steinmetz, K., "Experiments on Neutron Production Phase on the Frascati 1-MJ Plasma Focus," in <u>Proceedings of the Eighth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Brussels, Belgium, 1-10 July 1980</u>, Vol. II, IAEA-CN-38, International Atomic Energy Agency, Vienna, Austria, June 1981; <u>Nuclear Fusion</u> supplement 1981, pp. 20^C-223.

- Rager, J. P., "Progresses on Plasma Focus Research at Frascati," in

 Europhysics Conference Abstracts of the Tenth European Conference on

 Controlled Fusion and Plasma Physics, Moscow, USSR, 14-19 September

 1981, Vol. 5H, pp. 243-267, Merz, W. J. (series ed.), Thomas, G.

 (managing ed.), European Physical Society, Geneva, Switzerland,
 1981.
- Raizer, Yu. P., "Propagation of Discharges and Maintenance of a Dense Plasma by Electromagnetic Fields," <u>Soviet Physics--Uspekhi</u>, Vol. 15, No. 6, May/June 1973, pp. 688-707. (English translation of Russian original in <u>Uspekhi Fizicheskikh Nauk</u>, Vol. 108, November 1972, pp. 429-463.)
- Rapp, H., "Measurements Referring to Plasma Focus Scaling Laws," Physics
 Letters, Vol. 43A, No. 5, 9 April 1973, pp. 420-422.
- Rapp, H. and Trunk, M., "Characteristic Curves and Scaling Laws for a Mather Type Plasma Focus," in <u>Proceedings of the Sixth European</u>

 <u>Conference on Controlled Fusion and Plasma Physics, Moscow, USSR, 30</u>

 <u>July--4 August 1973</u>, Vol. I, pp. 371-374, European Physical Society, Vienna, Austria, 1973.
- Rhee, M. J., "Heavy-Ion Beams Produced by High-Voltage Pulse-Powered

 Plasma Focus," Applied Physics Letters, Vol. 37, No. 10, 15 November

 1980, pp. 906-908.

- Rhee, M. J., "Fully Stripped Ion Beams Produced by a Pulse Powered Plasma Focus Device" <u>IEEE Transactions of Nuclear Science</u>, Vol. NS-28, No. 3, June 1981, pp. 2663-2665.
- Rhee, M. J., Luo, C. M., Schneider, R. F. and Smith, J. R., "Charge State Resolved Energy Spectra of He, N, Ar, and Ne Ions," in Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983, Report No. IPF-83-6, pp. 47-50, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Ribe, F. L., "Theta Pinches and Other High-Beta Concepts," in

 Proceedings of the Second Topical Meeting on the Technology of

 Controlled Nuclear Fusion Research, Richland, Washington, 21-23

 September 1976, Vol. I, Report No. CONF-760935-P1, pp. 259-266,

 Kulcinski, C. L. and Burleigh, N. M. (eds.), Energy Research and

 Development Administration, Washington, D. C., 1976.
- Rieger, H. and Kim, K., "Performance of an Array of Plasma Pinches as a New Optical Pumping Source for Dye Lasers," <u>Journal of Applied</u>

 <u>Physics</u>, Vol. 54, No. 11, November 1983, pp. 6199-6212.
- Roberson, C. W., Fisher, A., Hubbard, J., Peter, W., Robertson, S., Rostoker, N., Saenz, G., Tzach, D., Sethian, J. D., Gerber, K. A., Spector, D. N., Goldenbaum, G. C., Hammer, D. A. and Robson, A. E., "Reversed Magnetic Fields Induced by a Rotating E-Beam," in

Proceedings of the Seventh International Conference on Plasma

Physics and Controlled Nuclear Fusion Research, Innsbruck, Austria,

23-30 August 1978, Vol. II, IAEA-CN-37, International Atomic Energy

Agency, Vienna, Austria, May 1979; Nuclear Fusion supplement 1979,

pp. 509-518.

- Robouch, B. V., "Neutron Production in the Plasma Focus," in <u>Proceedings</u>
 of the Third International Workshop on Plasma Focus Research,

 Stuttgart, Federal Republic of Germany, 12-13 September 1983, Report
 No. IPF-83-6, pp. 142-143, Herold, H. and Kaeppeler, H. J. (eds.),
 Institut für Plasmaforschung der Universität Stuttgart, Stuttgart,
 Federal Republic of Germany, September 1983.
- Rosenbluth, M., "Infinite Conductivity Theory of the Pinch," Report No.

 LA-1850, Los Alamos Scientific Laboratory, Los Alamos, New Mexico,

 14 September 1954.
- Rout, R. K. and Shyam, A., "Observation of Helical Structure in a Low Energy Plasma Focus Pinch," <u>Plasma Physics and Controlled Fusion</u>, Vol. 31, No. 5, May 1989, pp. 873-877.
- Rubert, R. R., Bishop, S. R., Chargin, A. K. and Calderon, M. O., "The Beta II Field-Reversed Experiment," in <u>Proceedings of the Eighth Symposium on Engineering Problems of Fusion Research, San Francisco, California, 13-16 November 1979</u>, Vol. I, pp. 282-285, McGregor, C. K. and Batzer, T. H. (eds.), Institute of Electrical and Electronics Engineers, New York City, New York, 1979.

- Rugge, H. F., Maxwell, D. E. and Zwick, S. A., "Plasma Focus Device Study," Report No. SAMSO-TR-67-107, Space and Missile Systems Organization, Norton AFB, California, October 1967.
- Rushailo, A. M., "Study on High-Frequency Oscillations in Flow of Coaxial Pulsed Plasma Accelerator," Report No. FTD-HT-23-1077-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 3 October 1974. (English translation of the Russian original in Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye, pp. 203-207, Moscow, USSR, 1973.)
- Rushailo, A. M., "Estimation of Temperature and Heat Flux in a Pulsed Electromagnetic Plasma Accelerator," <u>High Temperature</u>, Vol. 12, No. 6, July 1975, pp. 1115-1119. (English translation of Russian original in <u>Teplofizika Vysokikh Temperatur</u>, Vol. 12, No. 6, November/December 1974, pp. 1272-1277.)
- Sadowski, M. and Składnik-Sadowska, E., "Research on Magnetic Fields and Integral Visible Radiation of a Plasma Generated by a New Type Injector," Plasma Physics, Vol. 10, No. 4, April 1968, p. 470 (abstract only; included in article by) Lehnert, B., "Second European Conference on Controlled Fusion and Plasma Physics," Plasma Physics, Vol. 10, No. 4, April 1968, pp. 421-476.
- Sadowski, M. and Skladnik-Sadowska, E., "Experimental Studies of Plasma Generated by the RPI System," Report No. AEC-TR-7102/2 UC-34 TT 70-55010/2, pp. 1-16, U. S. Atomic Energy Commission, Washington, D.

- C., 1970. (English translation of Polish original in <u>Nukleonika</u>, Vol. 15, No. 2, February 1970, pp. 145ff.)
- Sadowski, M., Składnik-Sadowska, E., Sudlitz, K. and Timofeyev, A. D.,

 "Polarization Phenomena in Plasma Injected into a Magnetic Trap," in

 Proceedings of the Sixth European Conference on Controlled Fusion

 and Plasma Physics, Moscow, USSR, 30 July--4 August 1973, Vol. I,

 pp. 393-396, European Physical Society, Vienna, Austria, 1973.
- Sadowski, M., Schmidt, H. and Herold, H., "Time-Resolved Studies of Deuteron Beams Emitted from a Plasma Focus," Physics Letters, Vol. 83A, No. 9, 29 June 1981, pp. 435-439.
- Sadowski, M., Chyrczakowski, S., Komar, W., Rydygier, E. and Žebrowski, J., "Investigation of Ion Beams Generated in a Plasma Focus," in Europhysics Conference Abstracts of the Eleventh European Conference on Controlled Fusion and Plasma Physics, Aachen, Federal Republic of Germany, 5-9 September 1983, Vol. 7D, Part I, pp. 547-550, Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1983.
- Sadowski, M., Chyrczakowski, S., Komar, W., Rydygier, E. and Zebrovski, J., "Studies on Ion Beams Produced in a Plasma Focus, Part II," in Proceedings of the Third International Workshop on Plasma Focus

 Research, Stuttgart, Federal Republic of Germany, 12-13 September

 1983, Report No. IPF-83-6, pp. 39-42, Herold, H. and Kaeppeler, H.

- J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Sadowski, M., "Comments on Ion Beam Generation," in <u>Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp. 141-142, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Sadowski, M., Herold, H., Schmidt, H. and Shakhatre, M., "Filamentary Structure of the Pinch Column in Plasma Focus Discharges," Physics
 Letters, Vol. 105A, No. 3, 8 October 1984, pp. 117-123.
- Sadowski, M., Jakubowski, L., Rydygier, E. and Zebrowski, J., "Space-and Time-Resolved Studies of X-Ray and Ion Emission from the PF-360 Experiment," in <u>Europhysics Conference Abstracts of the Twelfth</u>

 <u>European Conference on Controlled Fusion and Plasma Physics,</u>

 <u>Budapest, Hungary, 2-6 September 1985</u>, Vol. 9F, Part I, pp. 538-541,

 Pocs, L. and Montvai, A. (eds.), Methfessel, S. (series ed.),

 Thomas, G. (managing ed.), European Physical Society, Geneva,

 Switzerland, 1985.
- Sadowski, M., Zebrowski, J., Rydygier, E., Herold, H., Jager, U. and Schmidt, H., "Multi-Spike Structure of Ion Pulses Generated by Plasma Focus Discharges," Physics Letters, Vol. 113A, No. 1, 25 November 1985, pp. 25-31.

- Sadowski, M., Zebrowski, J., Rydygier, E. Kuciński, J., "Studies on Ion Emission from Plasma Focus Facilities," in <u>Proceedings of the 14th</u>

 <u>European Conference on Controlled Fusion and Plasma Physics, Madrid,</u>

 <u>Spain, 22-26 June 1987</u>, Vol. 11D, Part II, p. 521, Engelmann, F. and Alvarez Rivas, J. L. (eds.) Europhysics Conference Abstracts,

 European Physical Society, 1987.
- Sadowski, M., Zebrowski, J., Rydygier, E. and Kuciński, J., "Ion Emission from Plasma-Focus Facilities," Plasma Physics and Controlled Fusion, Vol. 30, No. 6, June 1988, pp. 763-769.
- Sadowski, M., "Progress in Studies of X-Ray and Ion-Beam Emission from Plasma Focus Facilities," in <u>Plasma Physics and Controlled</u>

 <u>Thermonuclear Fusion</u>, Proceedings of the II Latin American Workshop on Plasma Physics and Controlled Thermonuclear Fusion, Medillin, Colombia, 16-28 February 1987, pp. 52-80, Krikorian, R. (ed.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1989.
- Sadowski, M., "Cylindrical Ion-Implosion Facilities, Physical Principles and Applications," in <u>Plasma Physics and Controlled Thermonuclear Fusion</u>, Proceedings of the II Latin American Workshop on Plasma Physics and Controlled Thermonuclear Fusion, Medillin, Colombia, 16-28 February 1987, pp. 81-108, Krikorian, R. (ed.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1989.
- Sahlin, H., Gullickson, R. and McFarland, G., "Yield Enhancement of the Plasma Focus I," in <u>Pulsed High Beta Plasmas</u>, Proceedings of the

- Third Topical Conference on Pulsed High Beta Plasmas, UKAEA Culham Laboratory, Abingdon, Oxfordshire UK, 9-12 September 1975, pp. 471-475, Evans, D. E. (ed.), Pergamon Press, Oxford, England, 1976.
- Sahlin, H., McFarland, G., Barlett, R. and Gullickson, R., "Plasma Focus as a Pulsed Power Source," in <u>Proceedings of the International Topical Conference on Electron Beam Research and Technology, Albuquerque, New Mexico, 3-6 November 1975</u>, Vol. II, Report No. SAND76-5122, pp. 96-128, Yonas, G. (ed.), Energy Research and Development Administration, Washington, D. C., February 1976.
- Sahlin, H. L., "Two Methods of Space-Time Energy Densification," in Energy Storage, Compression, and Switching, Proceedings of the International Conference on Energy Storage, Compression, and Switching, Asti-Torino, Italy, 5-7 November 1974, pp. 219-254, Bostick, W. H., Nardi, V., Zucker, O. S. F. (eds.), Plenum Press, New York City, New York, 1976.
- Salge, J., Braunsberger, V., Fell, B., Ueno, I. and Conrads, H.,
 "Sequences of Neutron and X-Ray Flashes During a Long-Lasting
 Current in a Plasma Focus Device," <u>Nuclear Fusion</u>, Vol. 18, No. 7,
 July 1978, pp. 972-974.
- Salukvadze, R. G., Khautiev, E. Yu., Kraus, V. I. and Batenyuk, A. A.,

 "Formation of Electron and Ion Beams in a Plasma Focus," in

 Europhysics Conference Abstracts of the Twelfth European Conference
 on Controlled Fusion and Plasma Physics, Budapest, Hungary, 2-6

- <u>September 1985</u>, Vol. 9F, Part I, pp. 562-565, Pocs, L. and Montvai, A. (eds.), Methfessel, S. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1985.
- Salukvadze, R. G., Khautiev, E. Yu., Reshetnyak, N. G., Krauz, V. I.,
 Batenyuk, A. A. and Chkhaidze, A. Ch., "Optimization of Initial Gas
 Distribution in Plasma Focus Discharges," in <u>Proceedings of the 14th</u>
 European Conference on Controlled Fusion and Plasma Physics, Madrid,
 Spain, 22-26 June 1987, Vol. 11D, Part II, p. 530-530C, Engelmann,
 F. and Alvarez Rivas, J. L. (eds.) Europhysics Conference Abstracts,
 European Physical Society, 1987.
- Savel'ev, V. V., "Two-Dimensional Calculation of the Flow of an Ionizing Gas in an Accelerator Channel," <u>Soviet Technical Physics Letters</u>, Vol. 2, No. 7, July 1976, pp. 232-233. (English translation of Russian original in <u>Pis'ma v Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 2, No. 7, 12 July 1976, pp. 593-596.)
- Schmidt, H., Nahrath, B. and Ruckle, B., "Time and Space Resolved Measurements of Density and X-Ray Emission of the NESSI Plasma Focus," in <u>Proceedings of the Seventh European Conference on Controlled Fusion and Plasma Physics</u>, Lausanne, Switzerland, 1-5

 <u>September 1975</u>, Vol. I, p. 57, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, 1975.

- Schmidt, H., Salzmann, H. and Strohwald, H., "Interferometry Using Subnanosecond Pulses from TEA Nitrogen Lasers," <u>Applied Optics</u>, Vol. 14, No. 9, September 19/5, pp. 2250-2251.
- Schmidt, H. and Ruckle, B., "Beam Deviation Method as a Diagnostic Tool for the Plasma Focus," <u>Applied Optics</u>, Vol. 17, No. 8, 15 April 1978, pp. 1275-1279.
- Schmidt, H., "The Plasma Focus--A Review," <u>Atomkernenergie/Kerntechnik</u>, Vol. 36, No. 3, 1980, pp. 161-166.
- Plasma Focus," in <u>Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp. 63-66, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Schmidt, H., Biermayer, W., Herold, H., Hesselmaier, B., Jäger, U.,

 Schmidt, R. and Shakhatre, M., "Preliminary Results of the POSEIDON

 Plasma Focus in the Operating Regime above 300 kJ," in <u>Proceedings</u>

 of the Fourth International Workshop on Plasma Focus and Z-Pinch

 Research, Warsaw, Poland, 9-11 September 1985, pp. 11-14, Denus, S.

 and Czekaj, S. (eds.), Institute of Plasma Physics and Laser

 Microfusion, Warsaw, Poland, 1985.

- Schmidt, H., "Plasma Focus and Z-Pinch," in <u>Plasma Physics and</u>

 <u>Controlled Thermonuclear Fusion</u>, Proceedings of the II Latin

 American Workshop on Plasma Physics and Controlled Thermonuclear

 Fusion, Medillin, Colombia, 16-28 February 1987, pp. 1-30,

 Krikorian, R. (ed.), World Scientific Publishing Company, Inc.,

 Teaneck, New Jersey, 1989.
- Schmidt, R. and Herold, H., "A Method for Time Resolved Neutron

 Spectroscopy on Short Pulsed Fusion Neutron Sources," Plasma Physics

 and Controlled Fusion, Vol. 29, No. 4, April 1987, pp. 523-534.
- Schmitt, H., Krompholz, H., Ruhl, F. and Herziger, G., "High-Power Narrowband Millimeter Waves Generated by the Electron Beam Emitted from the Plasma Focus," Physics Letters, Vol. 95A, No. 5, 2 May 1983, pp. 239-241.
- Schneider, R. F., Rhee, M. J., Gullickson, R. L. and Smith, J. R.,

 "Characteristics of Charged Particle Beams Produced by a Plasma
 Focus," in Proceedings of the Fourth International Workshop on

 Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September

 1985, pp. 108-111, Denus, S. and Czekaj, S. (eds.), Institute of
 Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Schneider, W., "Particle Acceleration by Electron Plasma Waves," in

 Proceedings of the Third International Workshop on Plasma Focus

 Research, Stuttgart, Federal Republic of Germany, 12-13 September

 1983, Report No. IPF-83-6, pp. 59-62, Herold, H. and Kaeppeler, H.

- J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Schönbach, K. H., Michel, L. and Fischer, H., "Correlation of Soft X-Ray Spots with Hard Radiation and Neutron Emission in a 1-kJ Plasma Focus," Applied Physics Letters, Vol. 25, No. 10, 15 November 1974, pp. 547-549.
- "Microinstabilities in the Plasma Focus," <u>Physics Letters</u>, Vol. 62A,
 No. 6, 19 September 1977, pp. 430-432.
- Sestero, A., Robouch, B. V. and Podda, S., "Suggested Relaxation of Plasma Focus Discharges to Helical Force-Free Configurations,"

 Plasma Physics, Vol. 22, No. 11, November 1980, pp. 1039-1041.
- Shapiro, I. S. et al., "The Operation of an Arc Plasma Gun in Transient Conditions," <u>Welding Production</u>, Vol. 26, No. 1, January 1979, pp. 39-42. (English translation of Russian original in <u>Svarochnoe Proizvodstvo</u>, No. 1, January 1979, pp. 28-30.)
- Shapiro, I. S. and Barkan, Z. M., "Conditions of Double Arc Formation in a Plasma Gun," <u>Welding Production</u>, Vol. 29, No. 11, November 1982, pp. 28-30. (English translation of Russian original in <u>Svarochnoe Proizvodstvo</u>, No. 11, November 1982, pp. 24-26.)

- Shatas, R. A., Stettler, J. D., Meyer, H. C. and Roberts, T. G., "Soft X Rays from a Laser-Heated Dense Plasma Focus," <u>Journal of Applied</u>
 Physics, Vol. 42, No. 13, December 1971, pp. 5884-5886.
- Shearer, J. W., Eddleman, J. L. and Ferguson, J. R., "Reconnection

 Conditions for Flowing Field-Reversed Plasma from a Plasma Gun," in

 Proceedings of the US-Japan Joint Symposium on Compact Toruses and

 Energetic Particle Injection, Plasma Physics Laboratory, Princeton,

 New Jersey, 12-14 December 1979, Report No. PPPL-1755, pp. 61-64,

 Princeton Plasma Physics Laboratory, Princeton, New Jersey, March

 1981.
- Sherwood, A. R., Henins, I., Hoida, H. W., Jarboe, T. R., McKenna, K. F., Linford, R. K., Marshall, J. and Platts, D. A., "Compact Toroids Generated by a Magnetized Coaxial Source in the CTX Experiment,"

 Report No. LA-UR-81-325, Los Alamos National Laboratory, Los Alamos, New Mexico, February 1981.
- Shriver, E. L., "Analytical and Experimental Investigation of the Coaxial Plasma Gun for Use as a Particle Accelerator," Report No. NASA TN D-6687, National Aeronautics and Space Administration, Washington, D. C., April 1972.
- Shubin, A. P., "Dynamic Nature of Critical Regimes in Steady-State High-Current Plasma Accelerators," <u>Soviet Journal of Plasma Physics</u>, Vol. 2, No. 1, January/February 1976, pp. 18-21. (English translation of

- Russian original in <u>Fizika Plasmy</u>, Vol. 2, No. 1, January/February 1976, pp. 34-39.)
- Shubin, A. P., "Dynamics of a Multicomponent Plasma in a Quasisteady Coaxial Accelerator with an Azimuthal Magnetic Field," <u>Soviet</u>

 <u>Journal of Plasma Physics</u>, Vol. 3, No. 5, September/October 1977, pp. 542-547. (English translation of Russian original in <u>Fizika</u>

 Plasmy, Vol. 3, No. 5, September/October 1977, pp. 987-995.)
- Shubin, A. P., "Impurity Dynamics in a High-Current Steady-State Coaxial Plasma Accelerator," <u>Soviet Journal of Plasma Physics</u>, Vol. 6, No. 5, September/October 1980, pp. 626-632. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 6, No. 5, September/October 1980, pp. 1139-1151.)
- Shyam, A. and Srinivasan, M., "Neutron Emission from a 100 Joule Plasma Focus," Applied Physics, Vol. 17, No. 4, December 1978, pp. 425-426.
- Sidney, V. V., Skvortsov, Yu. V., Solov'eva, V. G. and Umrikhin, N. M., "Electrodynamic Acceleration of a Hydrogen Plasma to High Velocities (10⁸ cm/sec)," <u>Soviet Journal of Plasma Physics</u>, Vol. 10, No. 2, March/April 1984, pp. 230-234. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 10, No. 2, March/April 1984, pp. 392-399.)
- Sinman, A. and Sinman, S., "A Study of REB Observed from a DPF System for Different Focus Plasmas," in Radiation in Plasmas, Proceedings of

the 1983 College on Plasma Physics, International Centre for Theoretical Physics, Trieste, Italy, Vol. II, pp. 1055-1060, McNamara, B. (ed.), World Scientific Publishing Company Pte Limited, Singapore, 1984.

- Sinman, S. and Sinman, A., "Determination and Evaluation of the Parameters of a DPF Using an Alternate Method," in <u>Europhysics</u>

 <u>Conference Abstracts of the Tenth European Conference on Controlled</u>

 <u>Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981</u>, Vol.

 5G, Part I, pp. 313-316, Merz, W. J. (series ed.), Thomas, G.

 (managing ed.), European Physical Society, Geneva, Swit Lland,

 1981.
- Sinman, S. and Sinman, A., "A Dense Plasma Focus Employing Self

 Controlled Multi-Pole Poloidal Field," in <u>Proceedings of the Fourth</u>

 <u>International Workshop on Plasma Focus and Z-Pinch Research, Warsaw,</u>

 <u>Poland, 9-11 September 1985</u>, pp. 43-46, Denus, S. and Czekaj, S.

 (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw,

 Poland, 1985.
- Składnik-Sadowska, E., Baranowski, J., Gryziński, M., Langner, J. and Sadowski, M., "Intense Ion Beam Generation in 'RPI' and 'SOWA' Ion-Implosion Facilities," <u>Journal de Physique</u>, Vol. 43, No. 5, May 1982, pp. 715-721.
- Skladnik-Sadowska, E., Baranowski, J., Gryzinski, M. and Sadowski, M.,
 "Diagnostics of Ion Beams in the 'MAJA' Implosion Facility," in
 Proceedings of the 17th International Conference on Phenomena in

- Ionized Gases, Budapest, Hungary, 8-12 July 1985, Vol. 1, pp. 254256, Bakos, J. S. and Sorlei, Z. (eds.)
- Skladnik-Sadowska, E., Baranowski, J., Sadowski, M. and Zebrowski, J.,
 "Dynamics of Ion Beam Emission from MAJA Implosion Facility," in

 Proceedings of the 18th International Conference on Phenomena in

 Ionized Gases, Swansea, England, 13-17 July 1987, Contributed
 Papers, pp. 420-421, Williams, W. T. (ed.)
- Skoblik, I. P., Zolototrubov, I. M. and Novikov, Yu. M., "Effect of Initial Gas Conditions in a Coaxial Accelerator on the Plasma Parameters," Soviet Physics--Technical Physics, Vol. 18, No. 2, August 1973, pp. 184-187. (English translation of Russian original in Zhurnal Tekhnicheskoi Fiziki, Vol. 43, No. 2, February 1973, pp. 281-286.)
- Skvortsov, Yu. V., Komel'kov, V. S. and Tserevitinov, S. S., "Magnetic Field Configuration in Current Carrying Plasma Jets," <u>Soviet Physics--Technical Physics</u>, Vol. 9, No. 6, December 1964, pp. 746-754. (English translation of Russian original in <u>Zhurnal</u> Tekhnicheskoi Fiziki, Vol. 34, No. 6, June 1964, pp. 965-973.)
- Skvortsov, Yu. V., Komel'kov, V. S. and Tereshchenko, V. N., "Radiation from a Plasma Stream," <u>Soviet Physics--Technical Physics</u>, Vol. 9, No. 10, April 1965, pp. 1383-1389. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 34, No. 10, October 1964, pp. 1790-1797.)

- Skvortsov, Yu. V., "Current Distribution along the Electrodes of a Pulsed Coaxial Plasma Injector," <u>Soviet Physics--Technical Physics</u>, Vol. 11, No. 10, April 1967, pp. 1346-1351. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 36, No. 10, October 1966, pp. 1808-1815.)
- Smith, A. C., Jr., Hartman, C. W., Carlson, G. A., Neef, W. S., Jr. and Eddleman, J. L., "Startup of Reversed-Field Mirror Reactors Using Coaxial Plasma Guns," in <u>Proceedings of the Eighth Symposium on Engineering Problems of Fusion Research, San Francisco, California, 13-16 November 1979</u>, Vol. II, pp. 607-610, McGregor, C. K. and Batzer, T. H. (eds.), Institute of Electrical and Electronics Engineers, New York City, New York, 1979.
- Smith, A. C., Jr., Carlson, G. A., Eddleman, J. L., Hartman, C. W. and Neef, W. S., Jr., "Use of Coaxial Plasma Guns to Start Up Field-Reversed-Mirror Reactors," Report No. UCRL-52922, Lawrence Livermore Laboratory, Livermore, California, 19 March 1980.
- Smith, A. J., Gholap, A. V. and Kwek, K. H., "Plasma Focus Operation in Different Gases," in Second Tropical College on Applied Physics:

 Laser and Plasma Technology, University of Malaya, Malaysia, 17

 March--5 April 1986, pp. 430-440, Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.

- Smith, A. J. and Gholap, A. V., "Intensity of Focus in Various Gases," in <u>Small Scale Physics Experiments</u>, Proceedings of Symposium on Small Scale Laboratory Plasma Experiments, Spring College on Plasma Physics, 25 May--19 June 1987, pp. 105-115, Lee, S. and Sakanaka, P. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Smith, M. J., "An Experimental Investigation of the Effects of
 Environmental Pressure on the Exhaust of a Coaxial Plasma Gun,"

 Master's thesis, United States Naval Postgraduate School, Monterey,
 California, March 1968.
- Smith, J. R., Luo, C. M., Rhee, M. J. and Schneider, R. F., "Study of Electron Beam Production by a Plasma Focus," in <u>Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13 September 1983</u>, Report No. IPF-83-6, pp. 51-54, Herold, H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Soliman, H. M., Masoud, M. M. and El-Khalafawy, T. A., "Influence on Longitudinal Magnetic Field on Current Sheath in Coaxial Discharge,"in Phenomena in Ionized Gases, Swansea England, 13-17 July 1987, Contributed Papers, pp. 432-433, Williams, W. T. (ed.)

- Soliman, H. M., El-Khalafawy, T. A. and Masoud, M. M., "Axial Sheath Dynamics in a Plasma Focus," in <u>Laser and Plasma Technology</u>, Proceedings of the Third Tropical College on Applied Physics, University of Malaya, Kuala Lumpur, Malaysia, 30 May--18 June 1988, pp. 320-334, Wong, C. S., Lee, S., Tan, B. C., Chew, A. C., Low, K. S. and Moo, S. P. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1990.
- Spitzer, L., Jr., <u>Physics of Fully Ionized Gases</u>, revised edition, Interscience Publishers, New York City, New York, 1962.
- Steinhaus, J. F., Barr, W. L. and Oleson, N. L., "Studies of a Coaxial E × B Plasma Gun," The Physics of Fluids, Vol. 10, No. 3, March 1967, pp. 641-647.
- Steinmetz, K., Hubner, K., Rager, J. P. and Robouch, B. V., "Neutron Pinhole Camera Investigations on Temporal and Spatial Structures of Plasma Focus Neutron Source," <u>Nuclear Fusion</u>, Vol. 22, No. 1, January 1982, pp. 25-32.
- Strait, E. J. and Sprott, J. C., "Experimental Test of the Feasibility of Heating Tokamaks by Gun Injection," <u>Nuclear Fusion</u>, Vol. 18, No. 11, November 1978, pp. 1595-1598.
- Strouse, R. D., "An Experimental Investigation of the Mass Distribution from the Exhaust of a Coaxial Plasma Accelerator," Master's thesis, Naval Postgraduate School, Monterey, California, June 1969.

- Stygar, W., Gerdin, G., Venneri, F. and Mandrekas, J., "Particle Beams Generated by a 6-12.5 kJ Dense Focus Source," <u>Nuclear Fusion</u>, Vol. 22, No. 9, September 1982, pp. 1161-1172.
- Suryadi, Usada, W., Tou, T. Y. and Moo, S. P., "Neutron Production from the UNU/ICTP Plasma Focus Facility," in Second Tropical College on Applied Physics: Laser and Plasma Technology, University of Malaya, Malaysia, 17 March--5 April 1986, pp. 477-483, Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Suydam, B. R., "Stability of Slowly Tapered Axisymmetric Plasma Flows,"

 Report No. LA-4034-MS, Los Alamos Scientific Laboratory, Los Alamos,

 New Mexico, 19 December 1968.
- Tanimoto, M. Koyama, K., Matsumoto, Y., and Sugiura, M., "Plasma Focus
 Heating by a TEA CO₂ Laser," in <u>Proceedings of the Sixth</u>

 <u>International Conference on Plasma Physics and Controlled Fusion</u>

 <u>Research, Berchtesgaden, Federal Republic of Germany, 6-13 October</u>

 <u>1976</u>, Vol. II, IAEA-CN-35, International Atomic Energy Agency,

 Vienna, Austria, May 1977; <u>Nuclear Fusion</u> supplement 1977, pp. 605-612.
- Thein, A., Kitagawa, Y., Takahashi, R., Yamada, Y. and Yokoyama, M.,

 "Neutron Yield Enchancement in a CO₂ Laser Irradiated Plasma Focus,"

- Journal of the PHysical Society of Japan, Vol. 42, No. 5, May 1977, pp. 1793-1794.
- Thein, A., Kitagawa, Y., Takahashi, R. and Yokoyama, M., "Instability Enhanced Emissions of X-Ray and Neutron in Plasma Focus," <u>Japanese</u>

 <u>Journal of Applied Physics</u>, Vol. 16, No. 6, June 1977, pp. 10091014.
- Thom, K., Norwood, J. and Jalufka, N., "Velocity Limitation of a Coaxial Plasma Gun," <u>The Physics of Fluids</u>, Vol. 7, No. 11, Part 2, November 1964, pp. S67-S70.
- Timofeev, A. D., Marinin, V. G., Shevchuk, B. A. and Kalmykov, A. A.,

 "Possible Mechanism of the Origin of High-Energy Particles in the

 Coaxial Plasma Gun," in <u>Investigation of Plasmoids (Selected</u>

 <u>Articles)</u>, Report No. FTD-HT-23-777-67, pp. 19-30, Foreign

 Technology Division, Wright-Patterson AFB, Ohio, 21 September 1967.

 (English translation of Russian original in <u>UkrSSR Issledovaniye</u>

 Plazmennykh Sgustkov, pp. 89-102, Kiev, USSR, 1965.)
- Timofeev, A. D., Marinin, V. G., Shevchuk, B. A. and Kalmykov, A. A.,

 "Performance of a Coaxial Plasma Source Generating Fast Particles,"

 <u>Soviet Physics--Technical Physics</u>, Vol. 10, No. 5, November 1965,

 pp. 662-666. (English translation of Russian original in <u>Zhurnal</u>

 <u>Tekhnicheskoi Fiziki</u>, Vol. 35, No. 5, May 1965, pp. 858-864.)

- Timofeev, A. D., Kalmykov, A. A. and Shevchuk, B. A., "The Peculiarity of Forming of the Current Sheet in the Coaxial Discharge at Low Pressure," in <u>Proceedings of the Ninth International Conference on Phenomena in Ionized Gases, 1-6 September 1969, Bucharest, Rumania, p. 213, Musa, G., Ghica, I., Popescu, A. and Nastase, L. (eds.), Editura Academiei Republicii Socialiste Romania, Bucharest, Rumania, 1969.</u>
- Toepfer, A. J., Smith, D. R. and Beckner, E. H., "Ion Heating in the Dense Plasma Focus," <u>The Physics of Fluids</u>, Vol. 14, No. 1, January 1971, pp. 52-61.
- Tolstolutskii, A. G., Zolototrubov, I. M., Zykov, V. G., Novikov, Yu. M. and Demin, V. S., "Mechanism for the X-Ray and Neutron Emission from the Plasma Focus of a Pulsed Coaxial Accelerator," Soviet Journal of Plasma Physics, Vol. 8, No. 2, March/April 1982, pp. 141-144.

 (English translation of Russian original in Fizika Plasmy, Vol. 8, No. 2, March/April 1982, pp. 255-261.)
- Tolstolutskij, A. G., Zykov, V. G., Zolototrubov, I. M. and Novikov, Yu. M., "Investigation of Pinched High-Velocity Plasma Fluxes," in – 109, p. 109, Culham Laboratory, Oxford, England, 1979.
- Toschi, R., "Frascati Tokamak and Plasma Focus Experiments: Design Information," in Proceedings of the Symposium on Technology of

- Controlled Thermonuclear Fusion Experiments and the Engineering

 Aspects of Fusion Reactors, Austin, Texas, 20-22 November 1972,

 Report No. CONF-721111, pp. 442-482, Draper, E. L., Jr. (ed.), U. S. Atomic Energy Commission, Oak Ridge, Tennessee, April 1974.
- Tou, T. Y. and Lee, S., "Analysis of Voltage and Current Measurements in DPF," in <u>Second Tropical College on Applied Physics: Laser and Plasma Technology</u>, University of Malaya, Malaysia, 17 March--5 April 1986, pp. 384-392, Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K. S., Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Tou, T. Y., Kwek, K. H., Yong, Y. C. and Lee, S., "A Small Plasma Focus

 Device for Neutron, X-Ray and Electron Beam Studies," in <u>Small Scale</u>

 <u>Physics Experiments</u>, Proceedings of Symposium on Small Scale

 Laboratory Plasma Experiments, Spring College on Plasma Physics, 25

 May--19 June 1987, pp. 46-54, Lee, S. and Sakanaka, P. H. (eds.),

 World Scientific Publishing Company, Inc., Teaneck, New Jersey,

 1988.
- Trubnikov, B. A. and Zhdanov, S. K., "Particle Acceleration by Breaking of the Constrictions of a Z-Pinch and a Plasma Focus," <u>Soviet</u>

 <u>Physics--JETP</u>, Vol. 43, No. 1, January 1976, pp. 48-54. (English translation of Russian original in <u>Zhurnal Eksperimental'noi i</u>

 Teoreticheskoi Fiziki, Vol. 70, No. 1, January 1976, pp. 92-103.)

- Trubnikov, B. A., "Particle Acceleration and Neutron Production at the Necks of Plasma Pinches," <u>Soviet Journal of Plasma Physics</u>, Vol. 12, No. 4, April 1986, pp. 271-283. (English translation of Russian original in Fizika Plasmy, Vol. 12, No. 4, April 1986, pp. 468-488.)
- Trunk, W., "Numerical Parameter Studies for Plasma Focus," Report No.

 LA-TR-74-31, Los Alamos Scientific Laboratory, Los Alamos, New

 Mexico, 1974. (English translation of German original, "Numerische

 Parameterstudien für den Plasmafokus," Report No. IPF-74-31,

 Institut für Plasmaforschung der Universität Stuttgart, Stuttgart,

 Federal Republic of Germany, 1974.
- Trunk, M., "Numerical Parameter Studies for the Dense Plasma Focus,"

 Plasma Physics, Vol. 17, No. 4, April 1975, pp. 237-248.
- Tsagas, N. F., Mair, G. L. R. and Prinn, A. E., "Motion and Shape of Snowplough Sheets in Coaxial Accelerators," <u>Journal of Physics D:</u>

 Applied Physics, Vol. 11, No. 9, June 1978, pp. 1263-1272.
- Tsing-Chi Yang and Xin-Xin Wang, "Experimental Study of Gas Discharge in Plasma Focus,"in Proceedings of the 18th International Conference on Phenomena in Ionized Gases, Swansea, England, 13-17 July 1987, Contributed Papers, pp. 422-423, Williams, W. T. (ed.)
- Tuck, J. L., "Plasma Jet Piercing of Magnetic Fields and Entropy

 Trapping into a Conservative System," Physical Review Letters, Vol.

 3, No. 7, 1 October 1959, pp. 313-315.

- Turchi, P. J., Bird, G., Boyer, C., Conte, D., Davis, J., DeRaad, L., Fisher, G., Johnson, L., Latter, A., Seiler, S., Thomas, D., Tsai, W. and Wilcox, F., "Development of Coaxial Plasma Guns for Power Multiplication at High Energy," in <u>Digest of Technical Papers, Third IEEE International Pulsed Power Conference, Albuquerque, New Mexico, 1-3 June 1981</u>, pp. 455-462, Martin, T. H. and Guenther, A. H. (eds.), Institute of Electrical and Electronics Engineers, New York City, New York, 1981.
- Turchi, P. J., Bird, G., Boyer, C. B., Conte, D., Crawford, R., Davis, J., DeRaad, L., Fisher, G., Latter, A., Seiler, S., Tsai, W. and Wilcox, T., "Coaxial Plasma Gun Research at High Magnetic Fields," in <u>Ultrahigh Magnetic Fields: Physics, Techniques, Applications</u>, Proceedings of the Third International Conference on Megagauss Magnetic Field Generation and Related Topics, Novosibirsk, USSR, 13-17 June 1983, pp. 145-159, Titov, V. M. and Shvetsov, G. A. (eds.), Nauka, Moscow, USSR, 1984.
- Turkowski, W., "Extreme Energy Concentration in Fusion Reaction at the Plasma-Focus Devices Project," in <u>Proceedings of the Fourth</u>

 <u>International Workshop on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September 1985</u>, pp. 60-63, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Turner, W. C., Hartman, C. W., Taska, J. and Smith, A. C., Jr., "Initial Results of Field Reversed Plasma Gun Experiment," in Proceedings of

the US-Japan Joint Symposium on Compact Toruses and Energetic

Particle Injection, Plasma Physics Laboratory, Princeton, New

Jersey, 12-14 December 1979, Report No. PPPL-1755, pp. 16-19,

Princeton Plasma Physics Laboratory, Princeton, New Jersey, March
1981.

- Turner, W. C., Goldenbaum, G. C., Granneman, E. H. A., Hartman, C. W., Prono, D. S., Taska, J. and Smith, A. C., Jr., "Formation of Compact Toroidal Plasmas by Magnetized Coaxial Plasma Gun Injection into an Oblate Flux Conserver," Report No. UCRL-85122, Lawrence Livermore National Laboratory, Livermore, California, 4 November 1980.
- Turner, W. C., Goldenbaum, G. C., Granneman, E. H. A., Hartman, C. W., Prono, D. S., Taska, J. and Smith, A. C., Jr., "Formation of Compact Toroidal Plasmas by Magnetized Coaxial Plasma Gun Injection into an Oblate Flux Conserver," in <u>Proceedings of the Third Symposium on the Physics and Technology of Compact Toroids in the Magnetic Fusion Energy Program, Los Alamos, New Mexico, 2-4 December 1980, Report No. LA-8700-C, pp. 113-118, Siemon, R. E. (ed.), Los Alamos National Laboratory, Los Alamos, New Mexico, March 1981.</u>
- Turner, W. C., Granneman, E. H. A., Hartman, C. W., Prono, D. S., Taska, J. and Smith, A. C., Jr., "Production of Field-Reversed Plasma with a Magnetized Coaxial Plasma Gun," <u>Journal of Applied Physics</u>, Vol. 52, No. 1, January 1981, pp. 175-182.

- Turner, W. C., Granneman, E. H. A., Hartman, C. W., Prono, D. S., Taska, J. and Smith, A. C., Jr., "Studies of the Formation of the Field Reversed Plasma by a Magnetized Co-Axial Plasma Gun," in <u>Proceedings of the Reversed-Field Pinch Theory Workshop, Los Alamos, New Mexico, 29 April--2 May 1980</u>, Report No. LA-8944-C, pp. 144-148, Lewis, H. R. (ed.), Los Alamos National Laboratory, Los Alamos, New Mexico, January 1982.
- Turner, W. C., Goldenbaum, G. C., Granneman, E. H. A., Hammer, J. H., Hartman, C. W., Prono, D. S. and Taska, J., "Investigations of the Magnetic Structure and the Decay of a Plasma-Gun-Generated Compact Torus," <u>The Physics of Fluids</u>, Vol. 26, No. 7, July 1983, pp. 1965-1986.
- Ueno, I., "Scaling Law Based on Plasma Focus Model for Neutron Yield,"

 Journal of the Faculty of Engineering, the University of Tokyo,

 series B, (Japan), Vol. 38, No. 3, March 1986, pp. 17-27.
- Ursu, I., Ivaşcu, M., Cotruţa, D., Dumitrescu-Zoiţa, C., Ludu, A.,

 Mandache, N., Novac, B., Zambreanu, V. and Zoiţa, V., "Experiments

 with a Plasma Focus Device Powered by Magnetic Flux-Compression

 Generators," in <u>Europhysics Conference Abstracts of the Twelfth</u>

 <u>European Conference on Controlled Fusion and Plasma Physics,</u>

 <u>Budapest, Hungary, 2-6 September 1985</u>, Vol. 9F, Part I, pp. 558-561,

 Pocs, L. and Montvai, A. (eds.), Methfessel, S. (series ed.),

 Thomas, G. (managing ed.), European Physical Society, Geneva,

 Switzerland, 1985.

- Usada, W. and Suryadi, "Design of BATAN Plasma Focus Facility," in

 Second Tropical College on Applied Physics: Laser and Plasma

 Technology, University of Malaya, Malaysia, 17 March--5 April 1986,

 pp. 484-490, Lee, S., Tan, B. C., Wong, C. S., Chew, A. C., Low, K.
 S., Ahmad, H. and Chen, Y. H. (eds.), World Scientific Publishing

 Company, Inc., Teaneck, New Jersey, 1988.
- Usada, W. and Suryadi, "BATAN PFFF," in <u>Small Scale Physics Experiments</u>, Proceedings of Symposium on Small Scale Laboratory Plasma

 Experiments, Spring College on Plasma Physics, 25 May--19 June 1987, pp. 15-22, Lee, S. and Sakanaka, P. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Utah Research and Development Company, Inc., "Coaxial Plasma Gun Study,"
 Report No. NASA-CR-108495, Salt Lake City, Utah, April 1970.
- Val'kov, Yu. A. and Skvortsov, Yu. V., "Current-Shell Dynamics in a Pulsed Electrodynamic Plasma Accelerator," <u>Soviet Physics--Technical</u> <u>Physics</u>, Vol. 17, No. 10, April 1973, pp. 1659-1669. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 42, No. 10, October 1972, pp. 2088-2104.)
- Val'kov, Yu. A. and Molchanov, V. S., "Dynamics of the Current Sheath in a Pulsed Coaxial Injector," Report No. FTD-MT-24-1086-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 21 August 1974. (English translation of the Russian original in Plazmennyye

- <u>Uskoriteli, Izd vo Mashinostroyeniye</u>, pp. 233-244, Moscow, USSR, 1973.)
- van Calker, C., Decker, G., Jäger, U., Kies, W. and Rybach, J., "Pinch Formation and Reaction Proton Spectra of SPEED 1 Focus Discharges," Physics Letters, Vol. 113A, No. 4, 16 December 1985, pp. 203-206.
- van Calker, C., Decker, G., Kies, W. and Rybach, J., "Pinch Formation and Emission Characteristics of the 200 kV Plasma Focus SPEED 1," in Proceedings of the Fourth International Workshop on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September 1985, pp. 74-77, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- van Paassen, H. L. L., Vandre, R. H. and White, R. S., "X-Ray Spectra from Dense Plasma Focus Devices," <u>The Physics of Fluids</u>, Vol. 13, No. 10, October 1970, pp. 2606-2612.
- van Paassen, H. L. L., "A Time-Resolved Ross Filter System for Measuring X-Ray Spectra in Z-Pinch Plasma Focus Devices," The Review of Scientific Instruments, Vol. 42, No. 12, December 1971, pp. 1823-1824.
- Vargas, M., Gratton, F., Gratton, J., Bruzzone, H. and Kelly, H.,

 "Experimental Verification of a Theory of the Current Sheath in the

 Plasma Focus," in <u>Proceedings of the Sixth International Conference</u>

 on Plasma Physics and Controlled Nuclear Fusion Research,

- Berchtesgaden, Federal Republic of Germany, 6-13 October 1976, Vol. III, IAEA-CN-35, International Atomic Energy Agency, Vienna, Austria, May 1977; Nuclear Fusion supplement 1977, pp. 483-487.
- Vasil'ev, V. I., Komel'kov, V. S., Skvortsov, Yu. V. and Tserevitinov, S. S., "Stable Dynamic Current Pinch," <u>Soviet Physics--Technical Physics</u>, Vol. 5, No. 7, January 1961, pp. 709-721. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 30, No. 7, July 1960, pp. 756-768.)
- Vasil'ev, V. I., Komel'kov, V. S. and Tserevitinov, S. S., "Plasmoid Structure in a Coaxial Injector," <u>Soviet Physics--Technical Physics</u>, Vol. 13, No. 6, December 1968, pp. 749-753. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 38, No. 6, June 1968, pp. 991-996.)
- Vasil'ev, V. I., Gervids, V. I., Zhitlukhin, A. M., Lotoskij, A. P.,
 Lyashenko, V. N., Skvortsov, Yu. V., Strunnikov, V. M., Unrikhin, N.
 M. and Tserevitinov, S. S., "Electrodynamic Accelerator Plasma and
 Its Use in Research on Controlled Thermonuclear Fusion," in
 Proceedings of the Fifth International Conference on Plasma Physics
 and Controlled Nuclear Fusion Research, Tokyo, Japan, 11-15 November
 1974, IAEA-CN-33, pp. 135-140, International Atomic Energy Agency,
 Vienna, Austria, 1975 (English translation of Russian original in
 Nuclear Fusion supplement 1975.)

- Vasil'ev, V. I., Zhitlukhin, A. M., Solov'eva, V. G., Skvortsov, Yu. V. and Umrikhin, N. M., "Investigation and Optimization of High-Power Electrodynamic Plasma Accelerators," in <u>Plasma Physics and Problems of Controlled Thermonuclear Reactions</u>, Report No. UCRL-TRANS-11487, pp. 41-56, Tolok, V. T. (ed.), Lawrence Livermore Laboratory, Livermore, California, June 1979. (English translation of Russian original in <u>Fizika Plazmy i Problemy Upravlyayemykh Termoyadernykh Reaktsil</u>, No. I(6), Report No. KHFTI 77-39, Voprosy Atomnol Nauki i Tekhniki-Seriya, Physical-Technical Institute, Academy of Sciences of the USSR, Kharkov, USSR, 1977.)
- Vasileva, R. P., Pergament, M. I. and Yaroslavsky, A. I., "Investigation of the Plasma Focus of a Coaxial Gun," in Proceedings of the Third International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Novosibirsk, USSR, 1-7 August 1968, IAEA-CN-24, International Atomic Energy Agency, Vienna, Austria, 1969; Nuclear Fusion special supplement 1969, pp. 129-134. (English translation of Russian original in Proceedings of the Third International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Novosibirsk, USSR, 1-7 August 1968, Vol. II, IAEA-CN-24, International Atomic Energy Agency, Vienna, Austria, March 1969; Nuclear Fusion supplement 1969, pp. 39-50.)
- Vasiljev, V. J., Gavrilov, V. V., Zhitlukhin, A. M., Kiskin, A. D., Lototsky, A. P., Skvortsov, Yu. V., Solovjova, V. G., Umrikhin, N. M. and Yaroslavsky, A. J., "Calculations of the Accelerator and Measurements of Parameters of the Deuterium Plasma Flow with

Stagnation Temperature about 1 keV and Total Directed Kinetic Energy about 100 kJ," in <u>Proceedings of the Seventh European Conference on Controlled Fusion and Plasma Physics</u>, <u>Lausanne</u>, <u>Switzerland</u>, 1-5

<u>September 1975</u>, Vol. I, p. 59, Ecole Polytechnique Federale de Lausanne</u>, <u>Lausanne</u>, <u>Switzerland</u>, 1975.

- Venkataramani, N. and Mattoo, S. K., "Plasma Retardation in Alfven's Critical Velocity Phenomenon," <u>Physics Letters</u>, Vol. 79A, No. 5/6, 27 October 1980, pp. 393-398.
- Venkataramani, N. and Mattoo, S. K., "A Coaxial Plasma Gun with a Controllable Streaming Velocity in the Range of 2-90 km sec⁻¹,"

 <u>Indian Journal of Pure and Applied Physics</u>, Vol. 19, No. 5, May 1981, pp. 448-453.
- Venneri, F., Kislev, H. and Miley, G. H., "Plasma Focus Wiggler for
 Free-Electron Laser Applications," Applied Physics Letters, Vol. 53,
 No. 23, 5 December 1988, pp. 2269-2271.
- Veron, D., "Depolarizing Currents in a Dense Plasma Inject along a

 Double Bend Magnetic Field," in <u>Proceedings of the APS Topical</u>

 <u>Conference on Pulsed High-Density Plasmas, Los Alamos Scientific</u>

 <u>Laboratory, Los Alamos, New Mexico, 19-22 September 1967</u>, Report No.

 LA-3770, pp. E4-1-E4-6, Los Alamos Scientific Laboratory, Los

 Alamos, New Mexico, 29 September 1967.

- Vikhrev, V. V., Golubchikov, L. G. and Svirskii, E. B., "On the Structure of a Plasma Sheath in the Initial Stage of a Powerful High Current Discharge in Gases," in <u>Proceedings of the Ninth</u>

 International Conference on Phenomena in Ionized Gases, 1-6

 September 1969, Bucharest, Rumania, p. 212, Musa, G., Ghica, I.,

 Popescu, A. and Nastase, L. (eds.), Editura Academiei Republicii

 Socialiste România, Bucharest, Rumania, 1969.
- Vikhrev, V. V. and Korzhavin, M., "Break of the Current Sheath in a Noncylindrical Z Pinch," <u>JETP Letters</u>, Vol. 19, No. 8, 20 April 1974, pp. 279-280. (English translation of Russian original in <u>Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki, Pis'ma v</u>

 Redaktsiiu, Vol. 19, No. 8, 20 April 1974, pp. 528-531.)
- Vikhrev, V. V. and Gureev, K. G., "Influence of Hall Effect on the Dynamics of a Non-Cylindrical Z-Pinch," <u>Nuclear Fusion</u>, Vol. 17, No. 2, February 1977, pp. 291-295.
- Vikhrev, V. V., Gureev, K. G., Zhdanov, S. K., Korzhavin, V. M. and Trubnikov, B. A., "Dynamics of a Non-Cylindrical Z-Pinch and the Particle Accelerator Mechanism," in <u>Proceedings of the Sixth</u>

 International Conference on Plasma Physics and Controlled Nuclear

 Fusion Research, Berchtesgaden, Federal Republic of Germany, 6-13

 October 1976, Vol. III, IAEA-CN-35, International Atomic Energy

 Agency, Vienna, Austria, May 1977; <u>Nuclear Fusion</u> supplement 1977, pp. 455-469.

- Vikhrev, V. V., "Simple Model for the Evolution of the Plasma Focus,"

 <u>Soviet Journal of Plasma Physics</u>, Vol. 3, No. 5, September/October

 1977, pp. 539-542. (English translation of Russian original in

 Fizika Plasmy, Vol. 3, No. 5, September/October 1977, pp. 981-986.)
- Vikhrev, V. V. and Korzhavin, V. M., "Effect of Anomalous Conductivity on the Dynamics of the Plasma Focus," <u>Soviet Journal of Plasma Physics</u>, Vol. 4, No. 4, July/August 1978, pp. 411-417. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 4, No. 4, July/August 1978, pp. 735-745.)
- Vikhrev, V. V. and Gureev, K. G., "Dynamics of a Strongly Radiating Plasma in a Noncylindrical Z Pinch," <u>Soviet Physics--Technical Physics</u>, Vol. 23, No. 11, November 1978, pp. 1295-1300. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 48, No. 11, November 1978, pp. 2264-2272.)
- Vikhrev, V. V., "Mechanism for Neutron Production in Z-Pinches," <u>Soviet</u>

 <u>Journal of Plasma Physics</u>, Vol. 12, No. 4, April 1986, pp. 262-270.

 (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 12, No. 4, April 1986, pp. 454-468.)
- Vinogradova, A. K., Vinogradov, V. P. and Morozov, A. I., "Neutron Radiation in a Plasma Focus," <u>Soviet Physics--Technical Physics</u>, Vol. 18, No. 8, February 1974, pp. 1032-1034. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 43, No. 8, August 1973, pp. 1637-1640.)

- Volobuev, I. V., Granatkin, B. V., Isakov, A. I., Kushin, V. V.,

 Lyapidevskii, V. K. and Myagkova, I. V., "Investigation of X-Ray

 Yield and Spectra from Plasma Focus by Nuclear Emulsion," in

 Proceedings of the International Conference on Plasma Physics,

 Nagoya, Japan, 7-11 April 1980 (Joint Conference of Fourth Kiev

 International Conference on Plasma Theory and Fourth International

 Conference on Waves and Instabilities in Plasma), Vol. I, p. 99,

 Fusion Research Association of Japan, Nagoya, Japan, 1980.
- Volobuev, I. V., Gribkov, V. A., Denus, D., Kalachev, N. V., Kozlova, T. A., Krokhin, O. N., Sledziński, S., Startsev, S. A. and Czekaj, S., "Comparative Characteristics of Soft X Radiation in Mather-Geometry Plasma-Focus Devices," <u>Soviet Journal of Plasma Physics</u>, Vol. 14, No. 6, June 1988, pp. 401-405. (English translation of Russian original in Fizika Plasmy, Vol. 14, No. 1, June 1988, pp. 682-688.)
- von Engel, A., Ionized Gases, Clarendon Press, Oxford, England, 1967.
- Voronov, G. S., "Acceleration of Solid Hydrogen Pellets in the Jet from a Plasma Gun," <u>Soviet Journal of Plasma Physics</u>, Vol. 7, No. 1, January/February 1981, pp. 119-121. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 7, No. 1, January/February 1981, pp. 213-217.)
- Wainwright, T., Pickles, W., McClure, J., Price, D. and Eltgroth, P.,

 "Results of the LLNL Plasma Focus Project," Report No. UCID-19175,

 Lawrence Livermore Laboratory, Livermore, California, August 1981.

- Wainwright, T. E., Pickles, W. L., Sahlin, H. L. and Price, D. F.,
 "Energy Coupling in the Plasma Focus," in Energy Storage,
 Compression, and Switching, Vol. 2, Proceedings of the Second
 International Conference on Energy Storage, Compression, and
 Switching, Venice, Italy, 5-8 December 1978, pp. 317-323, Nardi, V.,
 Sahlin, H. and Bostick, W. H. (eds.), Plenum Press, New York City,
 New York, 1983.
- Warren, S. W. R., Degnan, J. H., Beason, C. W., Price, D. W. and Snell, M. P., "High-Energy Photon Spectra from a Coaxial Gas-Puff Experiment," <u>Journal of Applied Physics</u>, Vol. 61, No. 8, Part 1, 15 April 1987, pp. 2771-2777.
- Weisbach, M. P. and Ahlstrom, H. G., "Dynamics of the Inverse Pinch,"

 The Physics of Fluids, Vol. 15, No. 8, August 1972, pp. 1459-1468.
- Wetstone, D. M., "Coaxial Plasmoid Source of Small Aspect Ratio," The Physics of Fluids, Vol. 5, No. 8, August 1962, pp. 981-987.
- Wetstone, D. M. and Greber, I., "Azimuthal Plasmoid Motion in a Coaxial Source with B_Z Bias," <u>The Physics of Fluids</u>, Vol. 7, No. 11, Part 2, November 1964, pp. S35-S40.
- Wilcox, J. M., Pugh, E., Dattner, A. and Eninger, J., "Experimental Study of the Propagation of an Ionizing Wave in a Coaxial Plasma Gun," The Physics of Fluids, Vol. 7, No. 11, Part 2, November 1964, pp. S51-S56.

- Willenborg, D. L. and Hendricks, C. D., "Design and Construction of a Dense Plasma Focus Device," Report No. AFOSR-TR-77-0134, Air Force Office of Scientific Research, Bolling AFB, Washington, D. C., October 1976.
- Wisler, D. C. and Nakagawa, Y., "Experimental Study of the Luminous Front Produced by a Coaxial Plasma Accelerator," The Physics of Fluids, Vol. 15, No. 11, November 1972, pp. 1948-1954.
- Witalis, E. A., "A Magnetic Field Generating Mechanism in the Plasma from a Coaxial Plasma Gun," <u>Plasma Physics</u>, Vol. 13, No. 6, June 1971, pp. 507-515.
- Witalis, E. A., "Magnetized Whirls in Plasma Focus Discharges," in

 Energy Storage, Compression, and Switching, Vol. 2, Proceedings of
 the Second International Conference on Energy Storage, Compression,
 and Switching, Venice, Italy, 5-8 December 1978, pp. 787-806, Nardi,
 V., Sahlin, H. and Bostick, W. H. (eds.), Plenum Press. New York
 City, New York, 1983.
- Witalis, E. A., "Current Tube Descritpion of the Focus Plasma," in

 Proceedings of the Third International Workshop on Plasma Focus

 Research, Stuttgart, Federal Republic of Germany, 12-13 September

 1983, Report No. IPF-83-6, pp. 99-102, Herold, H. and Kaeppeler, H.

 J. (eds.), Institut für Plasmaforschung der Universität Stuttgart,

 Stuttgart, Federal Republic of Germany, September 1983.

- Witalis, E. A., "Filamentation in the Plasma Focus as a Plasma Meissner Effect" in Proceedings of the Third International Workshop on Plasma Focus Research, Stuttgart, Federal Republic of Germany, 12-13

 September 1983, Report No. IPF-83-6, pp. 103-106, Herold. H. and Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der Universität Stuttgart, Stuttgart, Federal Republic of Germany, September 1983.
- Wolf, R. J., Sorrell, F. Y. and Nagakawa, Y., "Computation of Current Sheet Speeds in Plasma Acceleration," <u>AIAA Journal</u>, Vol. 8, No. 4, April 1970, pp. 807-809.
- Wolf, R. J., "An Investigation of the Coaxial Plasma Accelerator and the Production of Shock Waves by the Dense Plasma Focus," PhD dissertation, University of Colorado, Boulder, Colorado, 1970.
- Woodall, D. M., "Physics of High Temperature, Dense Plasmas," Report No.

 NE-100(84)AFOSR-765-2, Bureau of Engineering Research, University of

 New Mexico, Albuquerque, New Mexico, January 1984.
- Woodall, D. M. and Len, L. K., "Observations of Current Sheath

 Transition from Snowplow to Deflagration," Report No. SPF/02/84,

 Universidad Nacional Autonoma de Mexico, Distrito Federal, Mexico,
 1984.

- Woodall, D. M. and Len, L. K., "Observation of Current Sheet Transition from Snowplow to Deflagration," <u>Journal of Applied Physics</u>, Vol. 57, No. 3, 1 February 1985, pp. 961-964.
- Woodall, D. M., "Operational Characteristics of a High Voltage Dense Plasma Focus," Report No. AFWL-TR-84-119, Air Force Weapons Laboratory, Kirtland AFB, New Mexico, November 1985.
- Workman, J. B., "Insulator Ablation in Magnetic Piston Shock Tubes," The Physics of Fluids, Vol. 8, No. 12, December 1965, pp. 2162-2168.
- Yamada, Y., Kitagawa, Y., Tsuda, I. and Yokoyama, M., "Formation of Stable Pinch Column in Focus Plasma," <u>Journal of the Physical</u>

 <u>Society of Japan, Vol. 49, No. 1, July 1980, pp. 433-434.</u>
- Yamada, Y., Kitagawa, Y., Yokoyam,a, M. and Yamanaka, C., "Measurement of Energetic Protons Generated by a Plasma Focus Device," Physics
 Letters, Vol. 83A, No. 1, 4 May 1981, pp. 9-11.
- Yamada, Y., Kitagawa, Y. and Yokoyama, M., "High-Energy Deuteron Beam Generated by a Plasma Focus Device," <u>Journal of Applied Physics</u>, Vol. 58, No. 1, July 1985, pp. 188-192.
- Yamamoto, T., Kondoh, Y., Shimoda, K. and Hirano, K., "Measurement of Electron- and Ion Beam Energies and Currents in Plasma Flow Discharge," <u>Japanese Journal of Applied Physics</u>, Vol. 21, No. 4, April 1982, pp. 659-663.

- Yamamoto, Y., Kisoda, A., Yamada, A., Niki, H., Kitagawa, Y., Yamanaka, M., Yokoyama, M. and Yamanaka, C., "Localization of Neutrons

 Generated in a Dense Plasma Focus," <u>Japanese Journal of Applied</u>

 Physics, Vol. 23, No. 10, October 1984, pp. 1410-1411.
- Yang Jinji (Yang Tsin-Chi), "Plasma Focus Research in China," in

 Proceedings of the Third International Workshop on Plasma Focus

 Research, Stuttgart, Federal Republic of Germany, 12-13 September

 1983, Report No. IPF-83-6, pp. 25-30, Herold, H. and Kaeppeler, H.

 J. (eds.), Institut für Plasmaforschung der Universität Stuttgart,

 Stuttgart, Federal Republic of Germany, September 1983.
- Yeh, T. R., Wen, M., Yeh, C. K., Shang, D. J., Tzeng, C. C., Kuo, Y. Y. and Hou, W. S., "Experimental Studies of the 700 kJ Two-Gun Plasma Focus Device," <u>Digest of Technical Papers</u>, <u>Seventh IEEE Pulsed Power Conference</u>, <u>Monterey</u>, <u>California</u>, 11-14 June 1989, pp. 955-958, White, R. and Bernstein, B. H. (eds.), Institute of Electrical and Electronics Engineers, New York City, New York, 1989.
- Yeh, T. R., Wen, M., Tzeng, C. C., Shang, D. J., Yeh, C. K., Wu, K. S., Kuo, Y. Y. and Hou, W. S., "Neutron Localization Measurements from a Two-Gun Plasma Focus Device," <u>Laser and Particle Beams</u>, Vol. 7, Part 4, November 1989, pp. 773-779.
- Yokoyama, M., Kitagawa, Y., Tsuda, I., Yamada, Y., Ishizaki, A. and Naito, M., "Diagnostics of Dense Plasma Focus by Ruby Laser Holography," in Proceedings of the International Conference on

Plasma Physics, Nagoya, Japan, 7-11 April 1980 (Joint Conference of Fourth Kiev International Conference on Plasma Theory and Fourth International Conference on Waves and Instabilities in Plasma), Vol. I, p. 345, Fusion Research Association of Japan, Nagoya, Japan, 1980.

- Yokoyama, M., Kitagawa, Y., Yamada, Y., Yamanaka, C. and Hirano, K.,

 "Recent Progress in the Dense Plasma Focus," in <u>Proceedings of the</u>

 <u>Eighth International Conference on Plasma Physics and Controlled</u>

 <u>Nuclear Fusion Research, Brussels, Belgium, 1-10 July 1980</u>, Vol. II,

 IAEA-CN-38, International Atomic Energy Agency, Vienna, Austria,

 June 1981; Nuclear Fusion supplement 1981, pp. 187-195.
- Yokoyama, M., Kitagawa, Y., Yamada, Y. and Yamanaka, C., "Analysis of Energetic Particles in Dense Plasma Focus," in Europhysics
 Conference Abstracts of the Tenth European Conference on Controlled
 Fusion and Plasma Physics, Moscow, USSR, 14-19 September 1981, Vol.
 5G, Part I, pp. 277-280, Merz, W. J. (series ed.), Thomas, G. (managing ed.), European Physical Society, Geneva, Switzerland, 1981.
- Yokoyama, M., Kitagawa, Y., Yamada, Y., Okada, M., Yamamoto, Y.,
 Yamanaka, C., Hirano, K., Kondoh, Y., Shimoda, K., Yamamoto, T.,
 Hattori, M. and Sato, M., "Experimental Progress in Plasma Dynamics
 and Generation of Energetic Particles in Dense Plasma Focus," in

 Proceedings of the Ninth International Conference on Plasma Physics
 and Controlled Nuclear Fusion Research, Baltimore, Maryland, 1-8

- <u>September 1982</u>, Vol. II, IAEA-CN-41, International Atomic Energy Agency, Vienna, Austria, June 1983; <u>Nuclear Fusion</u> supplement 1983, pp. 415-422.
- Yokoyama, M., Yamamoto, Y., Kisoda, A., Yamada, Y., Kitagawa, Y.,
 Yamanaka, M. and Yamanaka, C., "Dense Plasma Focus Research in ILE,
 Osaka," in Europhysics Conference Abstracts of the Eleventh European

 Conference on Controlled Fusion and Plasma Physics, Aachen, Federal

 Republic of Germany, 5-9 September 1983, Vol. 7D, Part I, Vol. 473476, Methfessel, S. (series ed.), Thomas, G. (managing ed.),
 European Physical Society, Geneva, Switzerland, 1983.
- Yokoyama, M., Yamamoto, Y., Kisoda, A., Yamada, Y., Kitagawa, Y.,
 Yamanaka, M. and Yamanaka, C., "Dense Plasma Focus Research in ILE,
 Osaka," in Proceedings of the Third International Workshop on Plasma
 Focus Research, Stuttgart, Federal Republic of Germany, 12-13
 September 1983, Report No. IPF-83-6, pp. 21-24, Herold, H. and
 Kaeppeler, H. J. (eds.), Institut für Plasmaforschung der
 Universität Stuttgart, Stuttgart, Federal Republic of Germany,
 September 1983.
- Yokoyama, M., "Generation of Ion Beams and Applications," in <u>Proceedings</u>
 of the Third International Workshop on Plasma Focus Research,

 Stuttgart, Federal Republic of Germany, 12-13 September 1983, Report
 No. IPF-83-6, p. 140, Herold, H. and Kaeppeler, H. J. (eds.),
 Institut für Plasmaforschung der Universität Stuttgart, Stuttgart,
 Federal Republic of Germany, September 1983.

- Yokoyama, M., Yamada, Y., Yamamoto, Y., Kitagawa, Y. and Yamanaka, M.,

 "Experimental Studies in Dense Plasma Focus," in <u>Europhysics</u>

 <u>Conference Abstracts of the Twelfth European Conference on</u>

 <u>Controlled Fusion and Plasma Physics, Budapest, Hungary, 2-6</u>

 <u>September 1985</u>, Vol. 9F, Part I, pp. 554-557, Pocs, L. and Montvai,

 A. (eds.), Methfessel, S. (series ed.), Thomas, G. (series ed.),

 European Physical Society, Geneva, Switzerland, 1985.
- Yokoyama, M., Kitagawa, Y. and Yamada, Y., "Neutron Emission Studies in Dense Plasma Focus," in <u>Dense Z-Pinches</u>, Second International Conference, Laguna Beach, California, 1989, AIP Conference Proceedings No. 195, pp. 530-534, Pereira, N. R., Davis, J. and Rostoker, N. (eds.), American Institute of Physics, New York City, New York, 1989
- Young, E. H., Jr. and Duesterhoeft, W. C., Jr., "Theoretical and Experimental Studies on the Diffusion of Low Frequency Magnetic Field into a Moving Plasma," Plasma Physics, Vol. 12, No. 10, October 1970, pp. 799-813.
- Young, E. H., Jr. and Duesterhoeft, W. C., Jr., "Theoretical and Experimental Studies on the Diffusion of Low Frequency Magnetic Field into a Moving Plasma," Report No. AFOSR-TR-71-1046, Air Force Office of Scientific Research, Arlington, Virginia, April 1971.

- Young, F. C., "Neutron Diagnostics for Pulsed Power Sources," <u>IEEE</u>

 <u>Transactions on Nuclear Science</u>, Vol. NS-22, No. 1, February 1975,
 pp. 718-723.
- Yukhimchuk, S. A. and Magda, I. I., "Stabilization of Arc Position in Coaxial Gap of Plasma Gun," <u>Soviet Electrical Engineering</u>, Vol. 53, No. 10, October 1982, pp. 108-110. (English translation of Russian original in <u>Elektrotekhnika</u>, Vol. 53, No. 10, October 1982, pp. 54-56.)
- Zakaullah, M., Baig, T. J. and Murtaza, G., "Numerical Optimization of Dense Plasma Focus," in <u>Proceedings of the 14th European Conference on Controlled Fusion and Plasma Physics, Madrid, Spain, 22-26 June 1987</u>, Vol. 11D, Part II, pp. 549-552, Engelmann, F. and Alvarez Rivas, J. L. (eds.) Europhysics Conference Abstracts, European Physical Society, 1987.
- Zakaullah, M., Baig, T. J. and Murtaza, G., "Numerical Design of Plasma Focus Optimization," in <u>Small Scale Physics Experiments</u>, Proceedings of Symposium on Small Scale Laboratory Plasma Experiments, Spring College on Plasma Physics, 25 May--19 June 1987, pp. 23-45, Lee, S. and Sakanaka, P. H. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1988.
- Zakaullah, M., Baig, T. J., Beg, S. and Murtaza, G., "Ideal MHD Simulation for Plasma Focus," in Laser and Plasma Technology,

 Proceedings of the Third Tropical College on Applied Physics,

University of Malaya, Kuala Lumpur, Malaysia, 30 May--18 June 1988, pp. 347-357, Wong, C. S., Lee, S., Tan, B. C., Chew, A. C., Low, K. S. and Moo, S. P. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1990.

- Zakaullah, M., Baig, T. J., Beg, S. and Murtaza, G., "Neutron Emission from a Small Mather-Type Plasma Focus," in <u>Laser and Plasma</u>
 Technology, Proceedings of the Third Tropical College on Applied Physics, University of Malaya, Kuala Lumpur, Malaysia, 30 May--18
 June 1988, pp. 358-363, Wong, C. S., Lee, S., Tan, B. C., Chew, A. C., Low, K. S. and Moo, S. P. (eds.), World Scientific Publishing Company, Inc., Teaneck, New Jersey, 1990.
- Zalkind, V. M., Zykov, V. G., Karpukhin, V. I., Rudnev, N. I. and Tolok, V. T., "Mass-Energy Measurements of Plasma Trapped in the Aperture of a Divertor in Injection through a Magnetic Slot," Soviet Physics-Technical Physics, Vol. 14, No. 7, January 1970, pp. 925-929.

 (English translation of Russian original in Zhurnal Tekhnicheskoi
 Fiziki, Vol. 39, No. 7, July 1969, pp. 1231-1236.)
- Zambreanu, V. and Zoita, V., "Magnetic Field Measurements in a Coaxial Plasma Accelerator," Revue Roumaine de Physique, Vol. 24, No. 3/4, March/April 1979, pp. 379-384.
- Zambreanu, V., Mandache, N., Ionescu-Bujor, Th., Dumitrescu-Zoiţa,
 Zoiţa, V., Dimofte, C. and Cornea, A., "Investigation of Plasma
 Sheath Evolution in the Final Stages of Plasma Focus Device

- Operation," in <u>Proceedings of the Fourth International Workshop on Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September 1985</u>, pp. 23-26, Denus, S. and Czekaj, S. (eds.), Institute of Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Zavada, P. I., Kalmykov, A. A., Tereshin, V. I. and Chebotarev, V. V.,

 "Coaxial Plasma Injector with Preionization," Soviet Physics-
 Technical Physics, Vol. 17, No. 11, May 1973, pp. 1817-1821.

 (English translation of Russian original in Zhurnal Tekhnicheskoi

 Fiziki, Vol. 42, No. 11, November 1972, pp. 2326-2333.)
- Zavenyagin, Yu. A. and Dontsov, Yu. P., "Interferometric Investigations of a Plasma in a Coaxial High-Current Accelerator Using a Helium-Neon Laser," <u>Journal of Applied Spectroscopy</u>, Vol. 12, No. 4, 15 January 1973, pp. 468-471. (English translation of Russian original in <u>Zhurnal Priladnoi Spektroskopii</u>, Vol. 12, No. 4, April 1970, pp. 622-626.)
- Zel'dovich, Ya. B. and Raizer, Yu. P., <u>Physics of Shock Waves and High-</u>
 <u>Temperature Hydrodynamic Phenomena</u>, Vols. I and II, Hayes, W. D. and Probstein, R. F. (eds.), Academic Press, New York City, New York, 1967.
- Zharinov, A. V. and Popov, Yu. S., "Ion-Acceleration Regimes in Plasma Accelerators," <u>Soviet Journal of Plasma Physics</u>, Vol. 3, No. 2, March/April 1977, pp. 213-216. (English translation of Russian

- original in <u>Fizika Plasmy</u>, Vol. 3, No. 2, March/April 1977, pp. 376-381.)
- Zhdanov, S. K., "Electromagnetic Fields Accompanying the Turbulent

 Current Cutoff in the Z Pinch and the Plasma Focus," Soviet Journal

 of Plasma Physics, Vol. 7, No. 1, January/February 1981, pp. 122
 125. (English translation of Russian original in Fizika Plasmy, Vol.

 7, No. 1, January/February 1981, pp. 218-224.)
- Zhitlukhin, A. M., Safronov, V. M. and Skvortsov, Yu. V., "Optical-Interferometry Diagnostics of the Streams from Pulsed Plasma

 Accelerators," <u>Soviet Journal of Plasma Physics</u>, Vol. 7, No. 5,

 September/October 1981, pp. 604-607. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 7, No. 5, September/October 1981,

 pp. 1099-1105.)
- Zhitlukhin, A. M., Ilyushin, I. V., Safronov, V. M. and Skvortsov, Yu. V., "Interaction of Oppositely Directed Plasma Streams in a Longitudinal Magnetic Field," <u>Soviet Journal of Plasma Physics</u>, Vol. 8, No. 3, May/June 1982, pp. 287-292. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 8, No. 3, May/June 1982, pp. 509-518.)
- Zhukov, M. F., Zasypkin, I. M. and Mishne I. I., "Effect of Cooling-Gas Injection Arrangement on the Effectiveness of Film Cooling of the Walls of a Plasma Gun," <u>Fluid Mechanics--Soviet Research</u>, Vol. 11, No. 3, May/June 1983, pp. 75-84. (English translation of Russian

- original in <u>Raschet Teplomassoobmena v Energokhimicheskikh</u> Protsessakh, pp. 77-85, 1981.)
- Zoiţa, V., Dumitrescu-Zoiţa, C., Zambreanu, V., Ludu, A., and Novac, B.,
 "Numerical Simulation of a Plasma Focus Device with Inductive Energy
 Storage," in Proceedings of the Fourth International Workshop on
 Plasma Focus and Z-Pinch Research, Warsaw, Poland, 9-11 September

 1985, pp. 239-242, Denus, S. and Czekaj, S. (eds.), Institute of
 Plasma Physics and Laser Microfusion, Warsaw, Poland, 1985.
- Zolototrubov, I. M., Kiselev, V. A. and Novikov, Yu. M., "Study of Processes in a Coaxial Plasma Source," <u>Soviet Physics--Technical Physics</u>, Vol. 9, No. 6, December 1964, pp. 773-778. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 34, No. 6, June 1964, pp. 998-1004.)
- Zolototrubov, I. M., Kiselev, V. A. and Novikov, Yu. M., "Distribution of Current in a Coaxial Plasma Gun," <u>Soviet Physics--Technical Physics</u>, Vol. 10, No. 2, August 1965, pp. 204-207. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 35, No. 2, February 1965, pp. 253-258.)
- Zolototrubov, I. M., Rastrepin, A. B. and Skoblik, I. P., "Energy Distribution of Hydrogen Plasma from a Coaxial Source," <u>Soviet Physics--Technical Physics</u>, Vol. 11, No. 1, July 1966, pp. 79-83. (English translation of Russian original in <u>Zhurnal Tekhnicheskoi</u> Fiziki, Vol. 36, No. 1, January 1966, pp. 111-116.)

- Zolototrubov, I. M., Kiselev, V. A., Novikov, Yu. M., Ryzkov, N. M. and Tolok, V. T., "Coaxial Plasma Gun in a Longitudinal Magnetic Field,"

 <u>Soviet Physics--Technical Physics</u>, Vol. 11, No. 6, December 1966,

 pp. 766-771. (English translation of Russian original in <u>Zhurnal</u>

 Tekhnicheskoi Fiziki, Vol. 36, No. 6, June 1966, pp. 1040-1048.)
- Zolototrubov, I. M., Kiselev, V. A., Novikov, Yu. M., Ryzkov, N. M. and Tolok, V. T., "Coaxial Plasma Gun in a Longitudinal Magnetic Field,"

 <u>Soviet Physics--Technical Physics</u>, Vol. 11, No. 6, December 1966,

 pp. 766-771. (English translation of Russian original in <u>Zhurnal</u>

 <u>Tekhnicheskoi Fiziki</u>, Vol. 36, No. 6, June 1966, pp. 1040-1048.)
- Zolototrubov, I. M., Skoblik, I. P., Skibenko, A. I. and Ryzhov, N. M.,

 "Structure of Plasmoids Formed by a Coaxial Gun: Effect of Electrode
 Polarities," Soviet Physics—Technical Physics, Vol. 11, No. 6,

 December 1966, pp. 772-776. (English translation of Russian original
 in Zhurnal Tekhnicheskoi Fiziki, Vol. 36, No. 6, June 1966, pp.
 1049-1054.)
- Zolototrubov, I. M., Kiselev, V. A., Novikov, Yu. M. and Tolok, V. T.,

 "Operation of Coaxial Plasma Source in a Longitudinal Magnetic
 Field," Report No. FTD-MT-24-103-67, Foreign Technology Division,
 Wright-Patterson AFB, Ohio, 21 July 1967. (English translation of
 Russian original of "Rabota Koaksila'nogo Plasmennogo Istochnika v
 Prodol'nom Magnitonom Pole," in AN UkrSSR Fiziko-Tekhnicheskiy

 Institut Doklady, No. 80, pp. 1-8, Akademiya Nauk URSR, Kiev, USSR,
 1964.)

- Zolototrubov, I. M., Kiselev, V. A. and Novikov, Yu. M., "Investigation of Current Distribution in a Coaxial Plasma Gun," Report No. FTD-HT-23-584-67, Foreign Technology Division, Wright-Patterson AFB, Ohio, 8 September 1967. (English translation of Russian original "Issledovaniye Raspredeleniya Toka v Koakisial'noy Plasmennoy Pushke," in AN UkrSSR Fiziko-Tekhnicheskiy Institut Doklady, No. 82, pp. 1-10, Akademiya Nauk URSR, Kiev, USSR, 1964.)
- Zolototrubov, I. M., Kiselev, V. A., Novikov, Yu. M. and Tolok, V. T.,

 "Operation of the Coaxial Plasma Source in a Longitudinal Magnetic
 Field," in <u>Investigation of Plasmoids (Selected Articles)</u>, Report
 No. FTD-HT-23-777-67, pp. 31-38, Foreign Technology Division,

 Wright-Patterson AFB, Ohio, 21 September 1967. (English translation of Russian original in <u>UkrSSR Issledovaniye Plazmennykh Sgustkov</u>,

 Kiev, 1965.)
- Zolototrubov, I. M. and Novikov, Yu. M., "Work of Coaxial Accelerator in Dense and High-Energy Plasma Generating Regimes," Report No. FTD-HT-23-1080-74, Foreign Technology Division, Wright-Patterson AFB, Ohio, 22 October 1974. (English translation of Russian original in Plazmennyye Uskoriteli, Izd vo Mashinostroyeniye, pp. 214-218, Moscow, USSR, 1973.)
- Zolototrubov, I. M., Skoblik, I. P., Tolstolutskii, A. G. and
 Privezentsev, V. I., "Investigation of a Plasma Focus with a TimeResolved Laser Interferometer," <u>Soviet Physics--Technical Physics</u>,
 Vol. 19, No. 8, February 1975, pp. 1061-1062. (English translation

- of Russian original in <u>Zhurnal Tekhnicheskoi Fiziki</u>, Vol. 44, No. 8, August 1974, pp. 1699-1702.)
- Zolototrubov, I. M., Krasnikov, A. A., Kurishchenko, A. M., Novikov, Yu. M., Poryatui, V. S. and Tolstolutskii, A. G., "Neutron Yield from the Plasma of a Coaxial Accelerator," <u>Soviet Journal of Plasma Physics</u>, Vol. 4, No. 1, January/February 1978, pp. 1-3. (English translation of Russian original in <u>Fizika Plasmy</u>, Vol. 4, No. 1, January/February 1978, pp. 5-9.)
- Zolototrubov, I. M., Krasnikov, A. A., Kurishchenko, A. M., Novikov, Yu. M., Poryatui, V. S. and Tolstolutskii, A. G., "Measurement of Neutron Yield from the Plasma of a Coaxial Gun," in <u>Plasma Physics and Problems of Controlled Thermonuclear Reactions</u>, Report No. UCRLTRANS-11487, pp. 87-96, Tolok, V. T. (ed.), Lawrence Livermore Laboratory, Livermore, California, June 1979. (English translation of Russian original in <u>Fizika Plazmy i Problemy Upravlyayemykh Termoyadernykh Reaktsii</u>, No. I(6), Report No. KHFTI 77-39, Voprosy Atomnol Nauki i Tekhniki-Seriya, Physical-Technical Institute, Academy of Sciences of the USSR, Kharkov, USSR, 1977.)
- Zucker, O., Bostick, W., Gullickson, R., Long, J., Luce, J. and Sahlin, H., "A Repetitively Pulsed Material Testing Facility," in

 Proceedings of the International Conference on Radiation Test

 Facilities for the CTR Surface and Materials Program, Argonne

 National Laboratory, 15-18 July 1975, Report No. ANL/CTR-75-4, pp. 483-497, Argonne National Laboratory, Argonne, Illinois, 1975.

- Zucker, O., Bostick, W., Long, J., Luce, J. and Sahlin, H., "The Plasma Focus as a Large Fluence Neutron Source," <u>Nuclear Instruments and</u>
 Methods, Vol. 145, August/September 1977, pp. 185-190.
- Zucker, O. S. F. and Bostick, W. H., "Theoretical and Practical Aspects of Energy Storage and Compression," in <u>Energy Storage</u>, <u>Compression</u>, and <u>Switching</u>, Proceedings of the International Conference on Energy Storage, Compression, and Switching, Asti-Torino, Italy, 5-7
 November 1974, pp. 71-93, Bostick, W. H., Nardi, V., Zucker, O. S. F. (eds.), Plenum Press, New York City, New York, 1976.
- Zvorykin, V. D., Kamrukov, A. S., Kashnikov, G. N., Klementov, A. D., Kozlov, N. P., Malascenko, V. A., Protasov, Yu. S. and Rozanov, V. B., "Radiation from Plasma Focus in the Range of 1 to 40 eV," in – Part I, p. 32, Holsher, J. G. A. and Schram, D. C. (eds.), American Elsevier Publishing Company, Inc., New York City, New York, 1975.
- Zvorykin, V. D., Kashnikov, G. N., Klementov, A. D., Kozlov, N. P., Malashchenko, V. A., Protasov, Yu. S. and Rozanov, V. B., "Visible and Ultraviolet Emission from a Plasma Focus of a Magnetic Compressor," <u>Soviet Journal of Quantum Electronics</u>, Vol. 5, No. 11, November 1976, pp. 1316-1319. (English translation of Russian original in <u>Kvantovaya Elektronika</u>, Vol. 2, November 1975, pp. 2416-2422.)